

“This is Your Life”

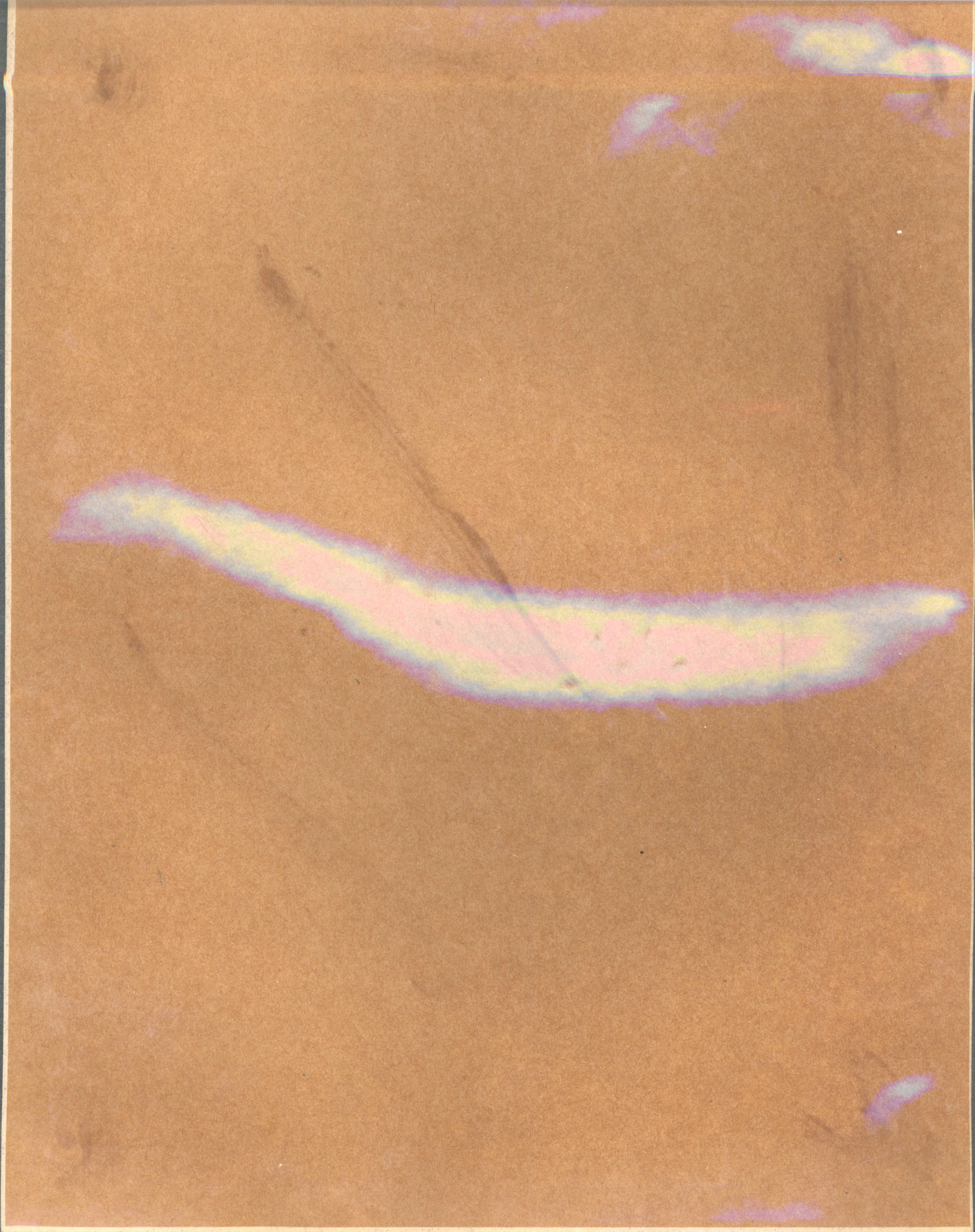
JOHN ROBERTS PHILLIPS, M. D.

5806 Bayou Bend :: Houston, Texas

Volume III Medical Works

BOOK XI

Compiled as a Gift at Christmas, 1956
By Your Wife “OLD FAITHFUL”
REBECCA HALL PHILLIPS, R. N.



NINETEEN HUNDRED AND SIXTY-TWO

CLINICAL
CONGRESS
OF
ABDOMINAL
SURGEONS

April 1-6, 1962
CHICAGO, ILLINOIS

INSTITUTIO CHIRURGIA
PERSEVERANTES

SUMMARY OF PROGRAM

Sherman Hotel

PANEL DISCUSSIONS
SURGICAL FILM PROGRAM
SURGICAL FILM FORUM
TECHNICAL EXHIBITS
SCIENTIFIC EXHIBITS
SOCIETY OFFICE
LADIES HOSPITALITY

GRAND BALLROOM
GREAT HALL
GREAT HALL
EXHIBIT HALL
EXHIBIT HALL
EXHIBIT HALL
CRYSTAL ROOM

MEZZANINE
MEZZANINE
MEZZANINE
MEZZANINE
MEZZANINE
MEZZANINE
FIRST FLOOR

PANEL DISCUSSIONS AND SURGICAL FILMS

MONDAY	MORNING	PAGE	AFTERNOON	PAGE
	Preoperative and Post-Operative Care	4	Acute Abdomen 1:30 p.m. - 3:00 p.m.	6
	10:00 a.m. - 12:00 Noon		Hernia	8
	Surgical Film Program		3:15 p.m. - 4:45 p.m.	
	8:30 a.m. - 11:30 a.m.		Surgical Film Program	
			1:30 p.m. - 3:45 p.m.	
			Evening Activity	
			6:30 p.m.	
			See Back Cover	
TUESDAY	MORNING		AFTERNOON	
	Pediatric Surgery	10	Surgery of the Colon	14
	8:30 a.m. - 10:00 a.m.		1:30 p.m. - 3:00 p.m.	
	Abdominal Vascular Surgery	12	Surgery of the Anus and Rectum	16
	10:30 a.m. - 12:00 Noon		3:15 p.m. - 4:45 p.m.	
	Surgical Film Program		Surgical Film Program	
	8:00 a.m. - 11:30 a.m.		1:30 p.m. - 4:00 p.m.	
WEDNESDAY	MORNING		AFTERNOON	
	Surgery of the Gall Bladder	18	Intraabdominal Gynecologic Surgery	22
	8:30 a.m. - 10:00 a.m.		1:30 p.m. - 3:00 p.m.	
	Surgery of the Biliary Tract	20	Intestinal Obstruction and Surgery of the Small Bowel	24
	10:30 a.m. - 11:45 a.m.		3:15 p.m. - 4:45 p.m.	
	Surgical Film Program		Surgical Film Program	
	8:00 a.m. - 11:30 a.m.		1:30 p.m. - 4:00 p.m.	
	Dragstedt Luncheon		Annual Banquet	
	12:00 Noon		7:00 p.m.	
	See Back Cover		See Back Cover	
THURSDAY	MORNING		AFTERNOON	
	Gastric and Duodenal Surgery	26	The Surgeon and the Law	
	8:30 a.m. - 10:00 a.m.		12:15 p.m.	
	Gastric and Duodenal Surgery	28	See Back Cover	
	10:30 a.m. - 12:00 Noon		Surgery of the Pancreas	30
	Surgical Film Program		1:30 p.m. - 3:00 p.m.	
	8:05 a.m. - 11:30 a.m.		Surgery of the Spleen	32
			3:15 p.m. - 4:45 p.m.	
			Surgical Film Program	
			1:30 p.m. - 4:00 p.m.	
FRIDAY	MORNING		EXHIBITORS	
	Urological Complications		SPECIAL EVENTS —	
	Following Abdominal Surgery	34	Back Cover	
	8:30 a.m. - 10:00 a.m.			
	Problems of Evaluation and Control of Quality in Surgery in a Community Hospital	36		
	10:30 a.m. - 12:00 Noon			
	Surgical Film Program			
	8:10 a.m. - 11:30 a.m.			

CLINICAL CONGRESS OF ABDOMINAL SURGEONS

SHERMAN HOTEL
Chicago, Illinois

Chairman: EDWARD J. KROL, M.D., Chicago, Illinois

Co-chairman: CHARLES H. LUPTON, M.D., Norfolk, Virginia

EDWARD JANSEN, M.D., Chicago, Illinois

LEONARD F. KOWALSKI, M.D., Melrose Park, Illinois

FRANK J. NOWAK, M.D., Chicago, Illinois

CAESAR PORTES, M.D., Chicago, Illinois

WALTER REICH, M.D., Chicago, Illinois

FRED SHEEHAN, M.D., Chicago, Illinois

FELIX WINSKUNAS, M.D., Chicago, Illinois

MILAN WASICK, M.D., Chicago, Illinois

KEITH WURTZ, M.D., Arlington Heights, Illinois

SIDNEY VERNON, M.D., Willimantic, Connecticut

SIDNEY VERNON, M.D., Willimantic, Connecticut

Chairman of Surgical Motion Picture Program

FELIX WINSKUNAS, M.D., Chicago, Illinois

Chairman of Registration Committee

FRANK J. NOWAK, M.D., Chicago, Illinois

Chairman Banquet Committee



Chairman

EDWARD J. KROL, B.S., M.D.

Vice-Chairman, Section of General Surgery, American Medical Association; *Co-Chairman*, Department of Surgery, Holy Cross Hospital, Chicago, Illinois; *Department of Surgery*, Stritch School of Medicine, Loyola University; *President Elect*, American College of Gastroenterology; *Vice-President*, Board of Trustees, American College of Proctology; *Board of Governors*, International College of Applied Nutrition; *Member*, Advisory Council on Surgical Education and Fellow American, American Society of Abdominal Surgeons; *Past President*, International Academy of Proctology; *Fellow*, New York Academy of Sciences; *Fellow*, American Association for Advancement of Science; *Fellow*, International College of Surgeons; *Fellow*, Royal Society of Medicine, London, England.



Co-Chairman

CHARLES HAMILTON LUPTON, M.D.,
Norfolk, Virginia

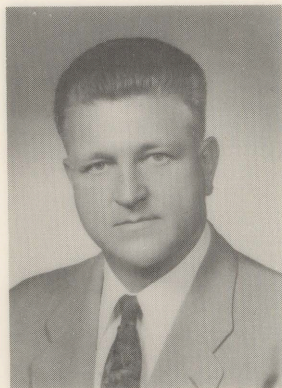
Director of Surgical Education, American Society of Abdominal Surgeons; Consultant, Norfolk General and King's Daughters Children's Hospitals; Clinical Investigator, Fine Silk, Fine Chromic Catgut and Large Catgut (Chromic and Plain); Former Chief of a Surgical Service, Norfolk General Hospital; Former Assistant Chief of Surgery, Norfolk Naval Hospital.



SIDNEY VERNON, M.D.
Willimantic, Conn.
Chairman,
Surgical Motion Picture
Program



FELIX WINSKUNAS, M.D.
Chicago, Ill.
Chairman,
Registration Committee



FRANK J. NOWAK, M.D.
Chicago, Illinois
Chairman,
Banquet Committee

MONDAY, APRIL 2, 1962

9:30 A.M. — Call to Order of Clinical Congress of Abdominal Surgeons

9:32 A.M. — Invocation

Very Reverend Msgr. James V. Moscow
Assistant Director of Catholic Hospitals of
Archdiocese of Chicago

9:34 A.M. — Welcome Address by Chairman of Congress —
Edward J. Krol, M.D.

9:35 A.M. — Welcome Address

Andrew Toman, M.D., Coroner, Cook County

9:40 A.M. — Welcome Address

Samuel Andelman, M.D., Commissioner of Health,
City of Chicago

9:45 A.M. — Welcome Address

President, American Society of Abdominal Surgeons

9:50 A.M. — Welcome Address

Blaise Alfano, M.D., Executive Secretary, American
Society of Abdominal Surgeons

Monday, April 2, 1962

PANEL DISCUSSION

PREOPERATIVE AND POSTOPERATIVE CARE

10:00 A.M. - 12:00 NOON
GRAND BALLROOM

Moderator:

REUBEN C. BALAGOT, M.D., Chicago, Illinois

Collaborators:

Preoperative Correction of Systemic Disease

HERMAN F. DEFEO, Chicago, Illinois

Anesthesia for Abdominal Surgery

LEONARD F. KOWALSKI, M.D., Chicago, Illinois

Cardiac Arrest — Prevention and Treatment

ARAN S. JOHNSON, M.D., Detroit, Michigan

Postoperative Care

RUSSELL S. GERARD, II, M.D., Waterloo, Iowa

Open Care of Wounds

JAMES B. FRENCH, M.D., Boulder City, Nevada

Intensive Care

GABE C. LONG, M.D., San Jose, California



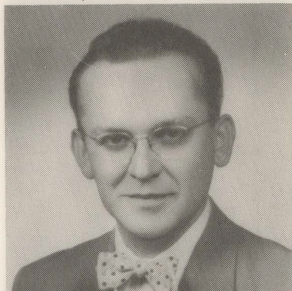
REUBEN C. BALAGOT, M.D., Chicago, Illinois

University of the Philippines, College of Medicine; Professor of Anesthesiology, University of Illinois, College of Medicine; Assistant Head, Department of Anesthesiology, R & E Hospitals.



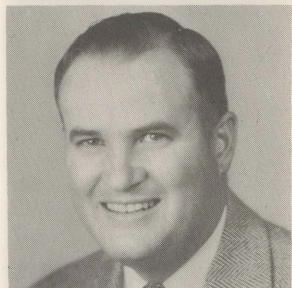
HERMAN DEFEO, M.D.,
Chicago, Illinois

Associate Clinical Professor of Medicine, Loyola; Consultant Medicine and Cardiology, Holy Cross Hospital; Consultant and Cardiologist, St. George Hospital, Cardiologist, Ingalls Memorial Hospital.



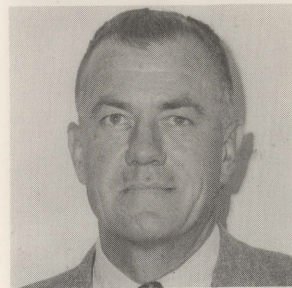
LEONARD F. KOWALSKI, M.D.,
Chicago, Illinois

Chief of Anesthesiology, Mercy Hospital; Assistant Clinical Professor, Stritch School of Medicine; former Director of Anesthesiology, Holy Cross Hospital; former Clinical Instructor in Anesthesiology, Illinois University School of Medicine; Editorial Board American Journal of Proctology.



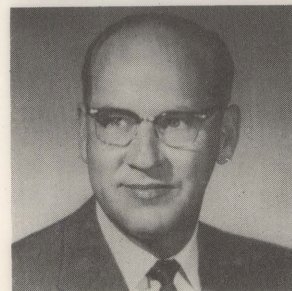
RUSSELL S. GERARD, II, M.D.,
Waterloo, Iowa

University of Iowa Medical College; Chief of Surgery, Allen Memorial Hospital; Surgical Staff St. Frances, Schoitz Memorial and Grundy County Hospitals.



JAMES B. FRENCH, M.D.,
Boulder City, Nevada

Loma Linda University, Los Angeles; former Chief of Surgery N.A.F.B., former Chief of Staff, Rose de Lima Hospital, Henderson, Nevada and Boulder City Hospital; Board of Directors, Nevada Chapter American Cancer Society.



GABE C. LONG, M.D.,
San Jose, California

University of Illinois College of Medicine; M.S. in Surgery, 1948 University of Minnesota; Fellowship Mayo Clinic, 1942-1946.

Monday, April 2, 1962

PANEL DISCUSSION

ACUTE ABDOMEN

1:30 P.M. - 3:00 P.M.

GRAND BALLROOM

Moderator:

LEONARD A. BIBLE, M.D., Jackson, Mississippi

Collaborators:

Non-Penetrating Wounds

BERNARD FICARRA, M.D., Bayville, L.I., New York

Penetrating Wounds

SHERIDAN S. EVANS, M.D., McAllen, Texas

Eviscerations Postoperative

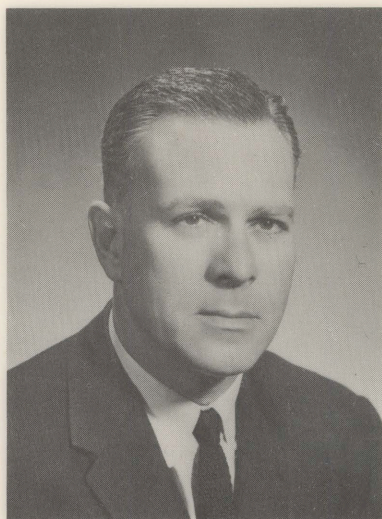
JOHN E. MORAN, M.D., Greenfield, Massachusetts

Non-Operative Acute Abdomen

WATSON H. WALKER, M.D., Columbus, Ohio

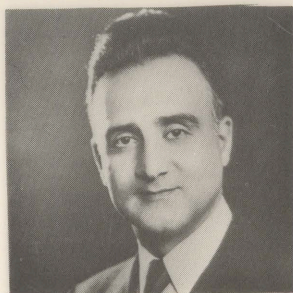
Emergency Abdominal Surgery

LEONARD A. BIBLE, M.D., Jackson, Mississippi



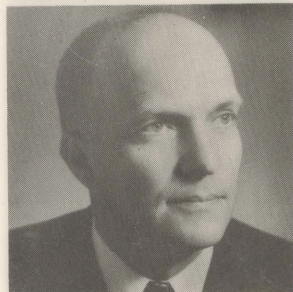
LEONARD A. BIBLE, M.D., Jackson, Mississippi

School of Medicine, University of Louisville; Department of Surgery, Mississippi Baptist Hospital and St. Dominic's Hospital.



BERNARD J. FICARRA, M.D.,
Bayville, L.I., New York

Director, Department of Surgery and Chief of Staff, Oyster Bay Hospital, Bayville; Research Associate, Post Graduate School, Long Island University; former Professor of Physiology, St. Francis College, Brooklyn; former Professor of Research Physiology, Post Graduate School of St. John's University, Brooklyn.



SHERIDAN S. EVANS, M.D.,
McAllen, Texas

Harvard Medical School; Chief of Surgery, McAllen Municipal Hospital; Consultant in Surgery, Edinburg County Hospital, Edinburg; Texas and Mission Municipal Hospital, Mission, Texas; former Asst. Chief of Surgery, Houston V. A. Hospital.



JOHN E. MORAN, M.D.,
Greenfield, Massachusetts

University of Maryland; Chief of Surgery, Franklin County Public Hospital, Greenfield; Department of Surgery, Farren Memorial Hospital, Montague City; Consulting Surgeon, Boston & Maine Railroad.



WATSON H. WALKER, M.D.,
Columbus, Ohio

Meharry Medical College, Nashville, Tennessee; Surgical Staff, St. Anthony, Mercy and Riverside Methodist Hospitals, Columbus.

BE SURE TO VISIT THE EXHIBIT AREA

Monday, April 2, 1962

PANEL DISCUSSION

HERNIA

3:15 P.M. - 4:45 P.M.

GRAND BALLROOM

Moderator:

ALFRED H. IASON, M.D., Brooklyn, New York

Collaborators:

Hiatal Hernia — Diagnosis and Treatment

LEONIDIS ANNEST, M.D., Tacoma, Washington

Transverse Incisional Herniorrhaphy

TERRY E. LILLY, M.D., Kansas City, Missouri

Inguinal and Femoral Hernias

RAYMOND F. TATRO, M.D., San Bernardino,
California

Complications of Hernial Repairs

CALVIN REED BROWN, M.D., Glendora, California

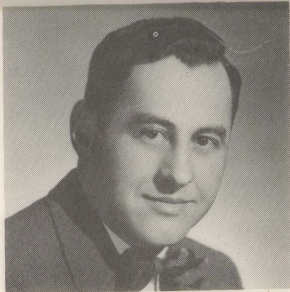
Hernia Surgery — Over 70 Year Age Group

DONALD R. J. WELSH, M.D., Toronto, Canada



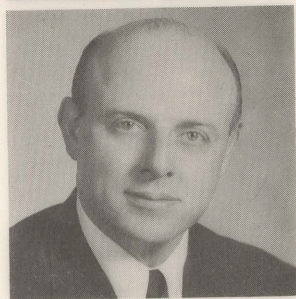
ALFRED H. IASON, M.D., Brooklyn, New York

Columbia Physicians and Surgeons College; Dept. of Surgery, New York Medical College; former Asst. Clinical Professor of Surgery, Long Island College of Medicine.



LEONIDIS ANNEST, M.D.,
Tacoma, Washington

University of Louisville School of Medicine; Department of Surgery, Tacoma General, St. Joseph's, Mary Bridge, Doctors and Lakewood General Hospitals.



TERRY E. LILLY, M.D.,
Kansas City, Missouri

New York University College of Medicine; Department of Surgery, Baptist Memorial Hospital, Research Hospital, Kansas City General Hospital and Independence Sanitarium and Hospital; Board of Consultation, Ellis Fischel State Cancer Hospital, Columbia, Missouri.



RAYMOND F. TATRO, M.D.,
San Bernardino, California

Loma Linda University; Asst. Clinical Professor, Loma Linda University; former Chief of Surgery, St. Bernadine's Hospital, Loma Linda Hospital.



CALVIN REED BROWN, M.D.,
Glendora, California

University of Utah College of Medicine; Consultant Surgeon, La Puente Valley Hospital; Oncology, City of Hope Hospital for Cancer and Allied Diseases; Department of Anatomy, University of Utah College of Medicine.



DONALD R. J. WELSH, M.D.,
Toronto, Canada

University of Toronto; Staff Surgeon, Shouldice Surgery, Toronto.

PEDIATRIC SURGERY

8:30 A.M. - 10:00 A.M.

GRAND BALLROOM

Moderator:

FRANK E. BARNES, M.D., Smithfield, North Carolina

Collaborators:

Pyloric Stenosis

DONALD E. JANELLI, M.D., Williston Park, New York

Surgical Problems in New Born

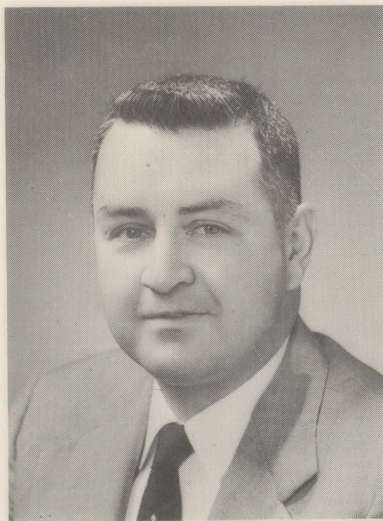
WILLIAM PEETE, M.D., Durham, North Carolina

Peptic Ulcers in Children

ROBERT B. TUDOR, M.D., Bismarck, North Dakota

Cholecystitis in Children

FRANK E. BARNES, JR., M.D., Smithfield, North Carolina



FRANK E. BARNES, JR., M.D., Smithfield, North Carolina

New York Medical College; President American Association for Automotive Medicine; Chairman North Carolina School Health Program on Medical Aspect of Sports.



DONALD E. JANELLI, M.D.,
Williston Park, New York

New York Medical College; M.S. Degree in Surgery, Post Graduate Medical School, New York University Bellevue Medical Center; Department of Surgery, Nassau Hospital and Meadowbrook Hospital.



ROBERT B. TUDOR, M.D.,
Bismarck, North Dakota

University of Minnesota; Department of Pediatrics, Quain & Ramstead Clinic; Member Cancer Committee and Public Relations Committee North Dakota State Medical Assn., Director Registry for Peptic Ulcers in Children.

NOTE:

WEDNESDAY NOON — Dragstedt Luncheon

WEDNESDAY EVENING — Annual Banquet

THURSDAY NOON — The Surgeon and The Law

Tickets are available at the Registration Desk

BE SURE TO VISIT THE EXHIBIT AREA

Tuesday, April 3, 1962

PANEL DISCUSSION

ABDOMINAL VASCULAR SURGERY

10:30 A.M. - 12:00 NOON

GRAND BALLROOM

Moderator:

DENTON A. COOLEY, M.D., Houston, Texas

Collaborators:

Diagnosis of Abdominal (Aortic) Aneurysm

TRUXTON L. JACKSON, M.D., Miami, Florida

Abdominal Pain Due to Aortic Aneurysm

GEORGE J. RUKSTINAT, M.D., Chicago, Illinois

Abdominal Anginal Syndrome and Surgical Treatment

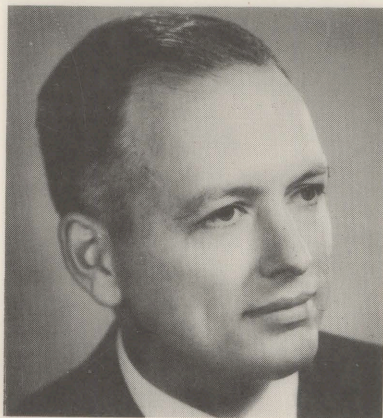
GEORGE C. MORRIS, JR., M.D., Houston, Texas

Management of Abdominal Aortic Aneurysm

WILLIAM J. DUFFY, M.D., Maplewood, New Jersey

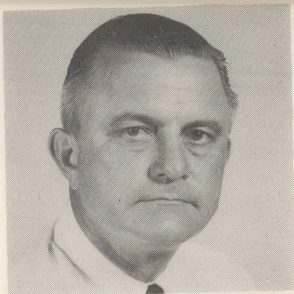
Treatment of Vascular Problems in the Abdomen

DENTON A. COOLEY, M.D., Houston, Texas



DENTON A. COOLEY, M.D., Houston, Texas

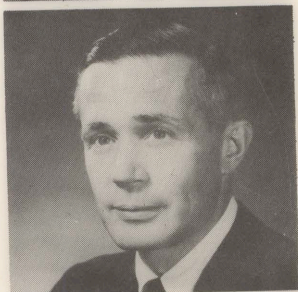
Associate Professor of Surgery, Baylor University College of Medicine; Chief, Cardiovascular Service Texas Children's Hospital; Attending Surgeon Jefferson Davis, Methodist and Veterans Administration Hospitals; Consulting Surgeon St. Luke's Hospital; Consultant, Cardiovascular Surgery Brooke Army Medical Center, Fort Sam Houston; Consultant Lackland Air Force Hospital; Dr. Cooley is the recipient of the Condecoración "Al Merito" 1961, Republic of Ecuador and Silver Bucranium, 1961 Venice International Film Festival for the movie "Surgical Treatment of Ventricular Septal Defect."



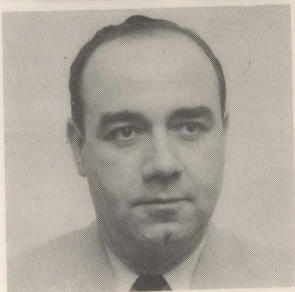
TRUXTON L. JACKSON, M.D.,
Miami, Florida
Vanderbilt Medical School, Nashville, Tennessee.



GEORGE J. RUKSTINAT, M.D.,
Chicago, Illinois
Clinical Professor of Pathology, Stritch School of Medicine, Loyola University; Pathologist, Holy Cross Hospital, Chicago.



GEORGE C. MORRIS, JR., M.D.,
Houston, Texas
University of Pennsylvania; Assistant Professor of Surgery and Director, Surgical Research Laboratory, Baylor University College of Medicine; Attending in Surgery, Jefferson Davis Hospital, Houston, Texas; Associate in Surgery, Methodist Hospital, Houston, Texas; Consultant in Surgery, Texas Children's and Veterans Administration Hospitals, Houston, Texas.



WILLIAM J. DUFFY, M.D.,
Maplewood, New Jersey
New York University, Bellevue Hospital, College of Medicine; Assistant Professor of Vascular Surgery, New York Polyclinic Medical School, New York City; Associate Attending Surgeon at St. Michael's Hospital, Newark, New Jersey; Assistant Attending Vascular Surgeon, Polyclinic Hospital, New York City; Assistant Attending Surgeon, Martland Medical Center, Newark, New Jersey

BE SURE TO VISIT THE EXHIBIT AREA

Tuesday, April 3, 1962

PANEL DISCUSSION

SURGERY OF THE COLON

1:30 P.M. - 3:00 P.M.

GRAND BALLROOM

Moderator:

LOUIS MALOW, M.D., Chicago, Illinois

Collaborators:

Benign Lesions

DONOVAN WARD, M.D., Dubuque, Iowa

Malignant Lesions

G. I. W. COTTAM, M.D., Sioux Falls, South
Dakota

Diverticulitis — Diverticulosis

ALBERT J. GROBMYER, JR., M.D., Memphis,
Tennessee

Cecostomy as Adjunct to Left Resection

FRANKLIN G. WADE, M.D., Williamsport,
Pennsylvania

Surgical Treatment of Ulcerative Colitis

JOHN J. COURY, JR., M.D., Port Huron, Michi-
gan



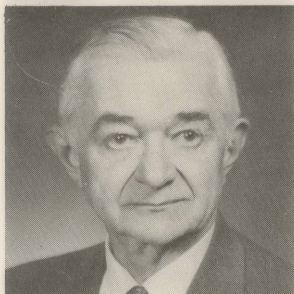
LOUIS MALOW, M.D., Chicago, Illinois

University of Illinois; Clinical Assistant Professor of Surgery, Chicago Medical School; Associate in Surgery, Grant Hospital; Consultant in Proctology, Manteno State Hospital; Department of Surgery, Edgewater and Lutheran General Hospitals.



DONOVAN F. WARD, M.D.,
Dubuque, Iowa

University of Iowa College of Medicine; Senior Surgeon, Finley Hospital, St. Joseph's Mercy Hospital and St. Francis Xavier Hospital.



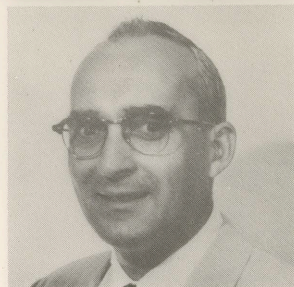
G. I. W. COTTAM, M.D.,
Sioux Falls, South Dakota

University of Iowa Medical School; Senior Surgical Staff and Consulting Surgical Staff of McKennan and Sioux Valley Hospital; former assistant to Dr. Harvey Cushing; former associate surgeon with Miller Hospital Clinic, St. Paul.



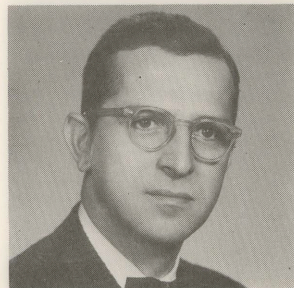
ALBERT J. GROBMYER, JR., M.D.,
Memphis, Tennessee

Chief of Staff, St. Joseph Hospital, Memphis, Tennessee.



FRANKLIN G. WADE, M.D.,
Williamsport, Pennsylvania

Chief of Surgery, Williamsport Hospital; Associate in Surgery, Divine Providence Hospital, Consultant in Surgery, Soldiers and Sailors Memorial Hospital, Wellsboro; Chairman, Allied Health Section Pennsylvania Disaster Medical Council.



JOHN J. COURY, JR., M.D.,
Port Huron, Michigan

Western Reserve University School of Medicine; Chief of Staff, Mercy Hospital, Port Huron.

Tuesday, April 3, 1962

PANEL DISCUSSION

SURGERY OF THE ANUS AND RECTUM

3:15 P.M. - 4:45 P.M.

GRAND BALLROOM

Moderator:

FRANK S. FORTE, M.D., Newark, New Jersey

Collaborators:

Benign Lesions

CAESAR PORTES, M.D., Chicago, Illinois

Prolapse of Rectum in Adults

LABEEB BOKHAIR, M.D., Brooklyn, New York

Malignant Lesions

MICHAEL S. BLICK, M.D., Buffalo, New York

Surgical Techniques—Pull Through vs. Abdominal Perineal

FRANK D. CONOLE, M.D., Binghamton, New York

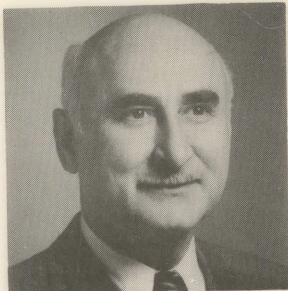
Complications of Ano-Rectal Surgery

FRANK S. FORTE, M.D., Newark, New Jersey



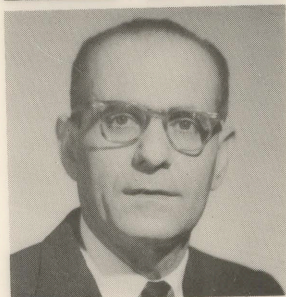
FRANK S. FORTE, M.D., Newark, New Jersey

Clinical Professor of Surgery, Seton Hall College; Attending Proctologist, St. Michael's Hospital, Presbyterian Hospital, Clara Maass Hospital, Martland Medical Center; Consultant Proctologist, Essex Mountain Sanitarium, Verona, N.J.



CAESAR PORTES, M.D.,

Chicago, Illinois
Clinical Asst. Professor of Surgery,
Dept. of Proctology, Chicago Medical
School; Medical Director, Cancer
Prevention Center of Chicago; Medical
Director, Gottlieb Memorial
Hospital, Melrose Pk.; Member
Medical and Scientific Committee
of American Cancer Society; Senior
Staff and Head of Proctology Dept.,
Henrotin Hospital; Consultant at
Columbus, Alexian Bros. Cuneo,
Belmont and Bethesda Hospitals.



LABEEB BOKHAIR, M.D.,

Brooklyn, New York

American University of Beirut, Lebanon; Clinical Associate in Surgery,
New York Medical College; Asst.
Surgeon, Flower and Fifth Avenue
Hospital; Associate Visiting Surgeon,
Metropolitan Hospital; Associate
attending Surgeon, St. John's Episcopal
Hospital, Brooklyn.



MICHAEL S. BLICK, M.D.,

Buffalo, New York

New York Medical College; former
Fellow in Surgery, New York Medical
College and Flowers Hospital;
former Chief of Surgery, U.S. Army
Hospital Ship Larkspur; Associate
attending in Surgery, Millard Fillmore
Hospital; Assistant attending
in Surgery, Kenmore Mercy Hospital
and Children's Hospital, Buffalo.



FRANK CONOLE, M.D.,

Binghamton, New York

BE SURE TO VISIT THE EXHIBIT AREA

Wednesday, April 4, 1962

PANEL DISCUSSION

SURGERY OF THE GALL BLADDER

8:30 A.M. - 10:00 A.M.

GRAND BALLROOM

Moderator:

CLARENCE E. BOYD, M.D., Shreveport, Louisiana

Collaborators:

Acute Cholecystitis — Management and Treatment

ROBERT U. COOPER, M.D., Washington, D.C.

Chronic Cholecystitis — Management and Treatment

GEORGE E. DUNCAN, M.D., Nashville, Tennessee

Tumors of the Gall Bladder

BRUCE L. ODOU, M.D., Montebello, California

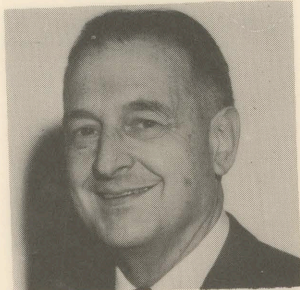
Complications of Gallbladder Surgery

WILLIAM R. WHITEHOUSE, M.D., Cleburne, Texas



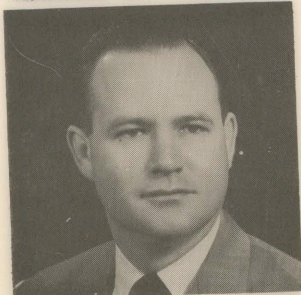
CLARENCE E. BOYD, M.D., Shreveport, Louisiana

University of Texas Medical School; Surgical Staff, Confederate Memorial Hospital and Doctors' Hospital & Research Foundation; Associate Professor of Surgery, Louisiana State Post Graduate School of Medicine.



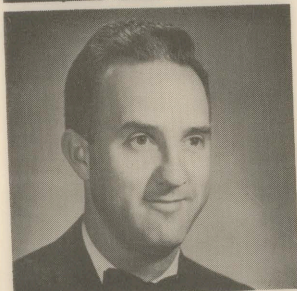
ROBERT U. COOPER, M.D.,
Washington, D.C.

University of Michigan; Attending Surgeon, Providence Hospital; Visiting Surgeon, Sibley Hospital and Casualty Hospital; author of "Investments for Professional People."



GEORGE E. DUNCAN, M.D.,
Nashville, Tennessee

Vanderbilt Medical School; Surgical Staff, Mid-State Baptist, St. Thomas, Vanderbilt, and Nashville General Hospitals.



BRUCE L. ODOU, M.D.,
Montebello, California

University of Southern California; former Chief of Surgery, Clark Air Force Base, Phillipines; presentation of Rhinophyma at 1960 Pan American Medical Meeting, Mexico City; Articles, Abbott-Rawson Tube in Surgery, Endoscopic Fulgeration, Rhinophyma.



WILLIAM R. WHITEHOUSE, M.D.,
Cleburne, Texas

Tulane School of Medicine; Chief of Surgical Staff, Johnson County Memorial Hospital; Chairman, Department of Surgery, Kimbro Clinic, Cleburne.

BE SURE TO VISIT THE EXHIBIT AREA

Wednesday, April 4, 1962

PANEL DISCUSSION

SURGERY OF THE BILIARY TRACT

10:30 A.M. - 11:45 A.M.

GRAND BALLROOM

Moderator:

CLARENCE E. BOYD, M.D., Shreveport, Louisiana

Collaborators:

Indication for Exploration

RICHARD J. CHODOFF, M.D., Philadelphia,
Pennsylvania

Operative Cholangiography

GEORGE M. BROWN, JR., M.D., McAlester,
Oklahoma

Postcholecystectomy Syndrome

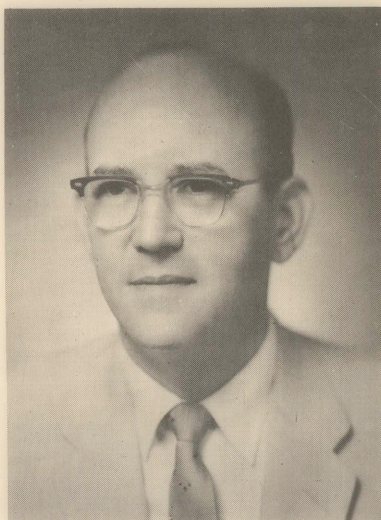
HARRY CUSTER, M.D., Colby, Kansas

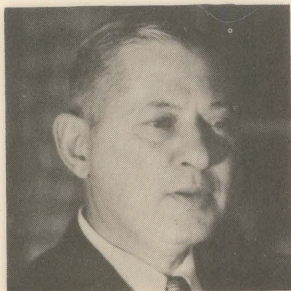
Complications of Biliary Tract Surgery

A. F. DuMAIS, M.D., Jamestown, North Da-
kota

"T" Tube Drainage vs. Primary Closure

CLARENCE E. BOYD, M.D., Shreveport, Louisi-
ana

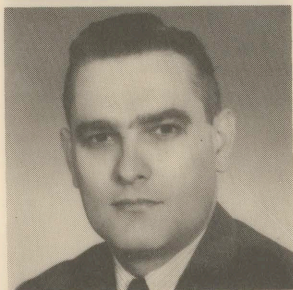




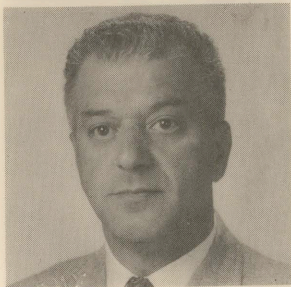
RICHARD J. CHODOFF, M.D.,
Philadelphia, Pennsylvania
Jefferson Medical College; Department of Surgery, Jefferson Hospital; Senior Attending Surgeon, Albert Einstein Medical Center; Attending Surgeon, Haverford Hospital.



GEORGE M. BROWN, JR., M.D.,
McAlester, Oklahoma
University of Oklahoma School of Medicine; Chief, Department of Surgery, McAlester Clinic; Surgical Staff, McAlester General Hospital, St. Mary's Hospital; Visiting Lecturer in Surgery, University of Oklahoma School of Medicine; Consultant, USPHS Indian Hospital, Oklahoma State Tuberculosis Sanitarium, Talikina and Atoka Memorial Hospital.



HARRY R. CUSTER, M.D.,
Colby, Kansas
Ohio State University, College of Medicine; Surgical Staff, St. Thomas Hospital, Colby and Logan County Hospital, Oakley, Kansas.



A. F. DUMAIS, M.D.,
Jamestown, North Dakota
Boston University School of Medicine; M.S. Degree from University of Minnesota; Surgeon for Medical Arts Clinic, Jamestown, North Dakota; Senior Surgical Staff, Jamestown and Trinity Hospitals.

NOTE:

12:00 NOON — Dragstedt Luncheon
LOUIS XVI ROOM

Wednesday, April 4, 1962

PANEL DISCUSSION

INTRAABDOMINAL GYNECOLOGIC SURGERY

1:30 P.M. - 3:00 P.M.
GRAND BALLROOM

Moderator:

WALTER J. REICH, M.D., Chicago, Illinois

Collaborators:

Bowel Obstruction Due to Endometriosis

ALBERT D. LORINCZ, M.D., Omaha, Nebraska

Hysterectomy — Indications and Technique

CLIFFORD W. MILLS, M.D., Norwalk, Connecticut

*Acute Appendicitis Complicating Pre-Existing
Gynecological Pathology*

ALBERT ALTCHER, M.D., New York, New York

Anterior Vaginal Suspension

RAPHAEL B. DURFEE, M.D., Portland, Oregon

Iliac — Artery Ligations — Indications

WALTER J. REICH, M.D., Chicago, Illinois

Abdominal Removal of Cervical Stump — Indications and Technique

WILLIAM B. HARRELL, M.D., Texarkana, Texas



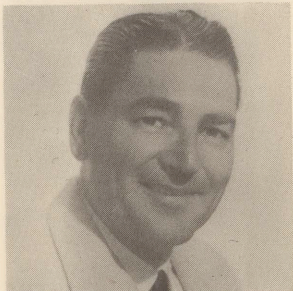
WALTER J. REICH, M.D., Chicago, Illinois

Attending Gynecologist, Cook County Hospital and Fantus Clinics; Professor of Gynecology, Cook County Graduate School of Medicine; Asst. Professor of Obstetrics and Gynecology, Chicago Medical School; Attending Gynecologist and Obstetrician, Grant Hospital and former Chairman of the department; Consulting Gynecologist, Oak Forest Hospital.



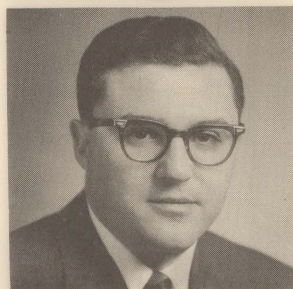
ALBERT B. LORINCZ, M.D.,
Omaha, Nebraska

University of Chicago School of Medicine; Professor and Chairman, Dept. of Obstetrics and Gynecology, Creighton University School of Medicine; former Asst. Professor of Obstetrics and Gynecology, University of Chicago and Chicago Lying-In Hospital.



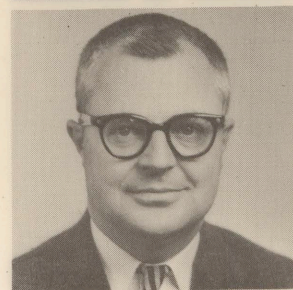
CLIFFORD W. MILLS, M.D.,
Norwalk, Connecticut

Cornell University Medical College; Senior Attending Gynecologist, Norwalk Hospital; Attending Gynecologist, Tumor Clinic, Norwalk Hospital.



ALBERT ALTCHek, M.D.,
New York City, N. Y.

New York University, Bellevue College of Medicine; Chief of Toxemia Clinic, Mt. Sinai Hospital; Asst. Attending Obstetrician-Gynecologist Mt. Sinai.



RALPH B. DURFEE, M.D.,
Portland, Oregon

Stanford University; Associate Professor, Obstetrics and Gynecology, University of Oregon Medical School; former Chief of Obstetrics and Gynecology Service, U.S. Army Hospital, Fort Leavenworth, Kansas.



WILLIAM B. HARRELL, M.D.,
Texarkana, Texas

Surgical Staff, St. Michael's Hospital, Texarkana, Arkansas and Wadley Hospital, Texarkana, Texas.

INTESTINAL OBSTRUCTION AND SURGERY OF THE SMALL BOWEL

3:15 P.M. - 4:45 P.M.
GRAND BALLROOM

Moderator:

MEYER O. CANTOR, M.D., Huntington Woods,
Michigan

Collaborators:

Benign Lesions

MILAN M. WASICK, M.D., Chicago, Illinois

Malignant Lesions

JOHN P. WAITKUS, M.D., Chicago, Illinois

Regional Enteritis

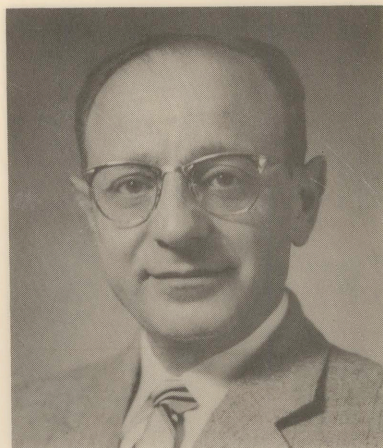
SELIG STRAX, M.D., New York, New York

Plication for Intestinal Obstruction

JAMES C. GREEN, M.D., Tupelo, Mississippi

*Restoration of Physiological Function Following
Treatment for Enterocoele*

HENRY A. SPRINGER, M.D., Cincinnati, Ohio



MEYER O. CANTOR, M.D., Huntington Woods, Michigan

University of Michigan Medical School; M.S. (Pathology) Wayne University; created Gelfoam Powder for use in massive upper gastro-intestinal hemorrhage; devised the Cantor intestinal decompression tube; developed the silicone intestinal decompression tube; Surgical Appointments include Deaconess, Sinai and Grace Hospitals in Detroit; Chief of Surgery, North Detroit General Hospital.



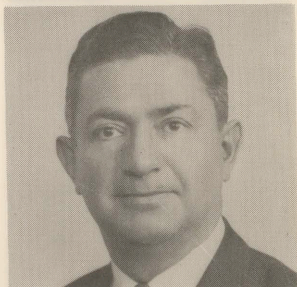
MILAN M. WASICK, M.D.,
Chicago, Illinois

University of Illinois College of Medicine; Assistant Clinical Professor of Surgery at University of Illinois.



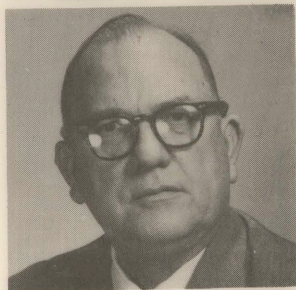
JOHN P. WAITKUS, M.D.,
Chicago, Illinois

Assistant Clinical Professor of Surgery, Stritch School of Medicine, Loyola University; Associate Attending Surgeon, Chicago Mercy Hospital; Attending Surgeon, Hines Veterans Administration Hospital; Senior Surgical Staff, Holy Cross Hospital; Chief Surgeon, St. Bernard's Hospital.



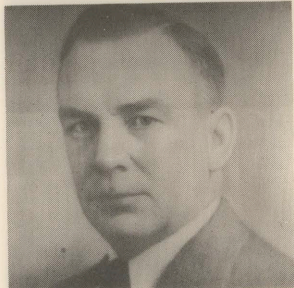
SELIG STRAX, M.D.,
New York, New York

New York University College of Medicine; Senior Clinical Assistant Surgeon, Mount Sinai Hospital.



JAMES C. GREEN, M.D.,
Tupelo, Mississippi

Tulane University Medical School; Senior surgeon, North Mississippi Community Hospital, Tupelo; Surgical Staff, Winter General Hospital, Topeka, Kansas; Chief of Septic Surgery 78th Station Hospital, Africa, Italy and France, World War II.



HENRY A. SPRINGER, M.D.,
Cincinnati, Ohio

University of Cincinnati; M.S. Surgery, Graduate School of Medicine, University of Pennsylvania; Consultant Surgeon, Deaconess Hospital and St. Francis Hospital, Cincinnati.

Thursday, April 5, 1962

PANEL DISCUSSION

GASTRIC AND DUODENAL SURGERY

8:30 A.M. - 10:00 A.M.

10:30 A.M. - 12:00 NOON

GRAND BALLROOM

Moderator:

JOHN ROBERTS PHILLIPS, M.D., Houston, Texas

Collaborators:

Benign Surgical Lesions

DONALD W. SINGLETON, M.D., Atlanta, Georgia

Upper G. I. Hemorrhage (or Hemorrhage of Unknown Origin)

PHILIP JACOBSON, M.D., Petersburg, Virginia

Complications of Gastric Surgery

RALPH E. MAURER, M.D., Littlefield, Texas

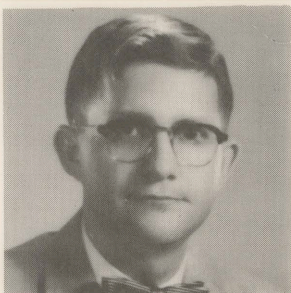
Ulcer — Complications and Treatment

PAUL F. ZITO, M.D., Perth Amboy, New Jersey



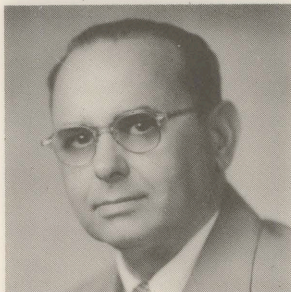
JOHN ROBERTS PHILLIPS, M.D., Houston, Texas

University of Maryland School of Medicine; Associate Professor of Surgery, Post Graduate School, University of Texas; Assistant Professor of Surgery, Baylor University.



DONALD W. SINGLETON, M.D.,
Atlanta, Georgia

University of Tennessee College of Medicine; Surgical staff, Georgia Baptist Hospital, St. John's Infirmary and Crawford W. Long Hospital; Dr. Singleton is the author of "Second Look Operation for Cancer Patient."



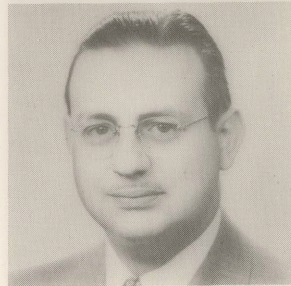
PHILIP JACOBSON, M.D.,
Petersburg, Virginia

University of Maryland Medical School; Dr. Jacobson has made many contributions to the literature which contain several new procedures and he has been particularly interested in and successful with the hormonal therapy of Spontaneous Hemorrhage, which he describes as a clinical entity in itself.



RALPH E. MAURER, M.D.,
Littlefield, Texas

University of Berne, Switzerland; Chief of Surgery, Medical Arts Hospital, Littlefield.



PAUL F. ZITO, M.D.,
Perth Amboy, New Jersey

Long Island College of Medicine; Chief, Surgical Service, Perth Amboy General Hospital; Consultant in Surgery at South Amboy Memorial Hospital, Middlesex Polio and Rehabilitation Hospital and Roosevelt Hospital for Chest Diseases.

BE SURE TO VISIT THE EXHIBIT AREA

Thursday, April 5, 1962

PANEL DISCUSSION

GASTRIC AND DUODENAL SURGERY

8:30 A.M. - 10:00 A.M.

10:30 A.M. - 12:00 NOON

GRAND BALLROOM

Moderator:

JOHN ROBERTS PHILLIPS, M.D., Houston, Texas

Collaborators:

Diverticula — Complications and Treatment

THOMAS A. KIRK, JR., M.D., Roanoke, Virginia

Role of Vagotomy in the Surgical Control of Duodenal Ulcer

WALTER A. D'ALONZO, M.D., Philadelphia, Pennsylvania

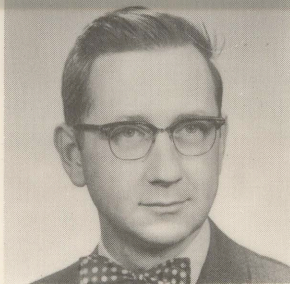
Complications of Duodenal Surgery

DURAND BENJAMIN, M.D., St. Louis, Missouri

Malignant Surgical Lesions

JOHN ROBERTS PHILLIPS, M.D., Houston, Texas





T. ALLEN KIRK, JR., M.D.,
Roanoke, Virginia

University of Virginia School of
Medicine; Surgical Staff, Roanoke
Memorial Hospital, Shenandoah
Hospital and Burrell Memorial Hos-
pital.



WALTER A. D'ALONZO, M.D.,
Philadelphia, Pennsylvania

Temple University Medical School;
M.Sc. Surgery, University of
Pennsylvania; Associate in Surgery,
Woman's Medical College and Phil-
adelphia General Hospital; Chief
of Surgery, St. Joseph's Hospital;
St. Agnes' Hospital, Holy Redeemer
Hospital.



DURAND BENJAMIN, M.D.,
St. Louis, Missouri

St. Louis University School of Medi-
cine; Surgeon, St. Anthony's Incar-
nate Word, St. Joseph's Lutheran,
Alexian Brothers, St. Mary's Group.

NOTE:

12:15 P.M. — Luncheon—The Surgeon and the Law
LOUIS XVI ROOM

BE SURE TO VISIT THE EXHIBIT AREA

Thursday, April 5, 1962

PANEL DISCUSSION

SURGERY OF THE PANCREAS

1:30 P.M. - 3:00 P.M.

GRAND BALLROOM

Moderator:

JAMES T. NIX, M.D., New Orleans, Louisiana

Collaborators:

Acute Pancreatitis

JERRY ZASLOW, M.D., Philadelphia, Pennsylvania

A New Diagnostic Test of Pancreatic Insulinoma

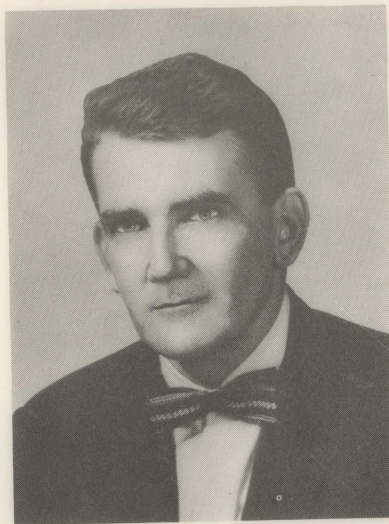
LEONARD FLAX, M.D., Baltimore, Maryland

Tumors of Pancreas

GEORGE R. ROSENBAUM, M.D., Charleston, West Virginia

Surgery of the Pancreas

JAMES T. NIX, M.D., New Orleans, Louisiana



JAMES T. NIX, M.D., New Orleans, Louisiana

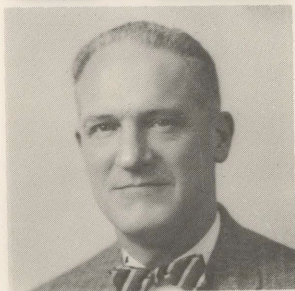
Louisiana State University School of Medicine, New Orleans; Department of Surgery, Hotel Dieu, Charity, Sara Mayo and Flint Goodridge Hospitals, New Orleans, Terrebonne General Hospital, Houma, Louisiana and St. James Parish Hospital, Litcher, Louisiana.



JERRY ZASLOW, M.D.,
Philadelphia, Pennsylvania
Temple University Medical School;
Associate Surgeon, Albert Einstein
Medical Center; Asst. Professor of
Surgery, Temple University Medi-
cal School; Rolling Hills Hospital.



LEONARD FLAX, M.D.,
Baltimore, Maryland
University of Maryland School of
Medicine; Surgical Consultant and
Board of Directors, Angel's Haven,
Home for Retarded Children.



GEORGE R. ROSENBAUM, M.D.,
Charleston, West Virginia
Medical College of Virginia; Presi-
dent of Staff of McMillan Hospital,
Charleston.

BE SURE TO VISIT THE EXHIBIT AREA

SURGERY OF THE SPLEEN

3:15 P.M. - 4:45 P.M.

GRAND BALLROOM

Moderator:

DONALD C. COLLINS, M.D., Hollywood, California

Collaborators:

Indications for Splenectomy

RICHARD B. KOEFOOT, M.D., Broken Bow,
Nebraska

Technique of Splenectomy

LEO KUKER, M.D., Carroll, Iowa

Blood Dyscrasias

GEORGE W. FERENZ, M.D., Chicago, Illinois

Splenic Portography

DAVID E. DAVIDOFF, M.D., Milwaukee, Wis-
consin

Complications of Splenectomy

FRANCIS J. KELLY, M.D., Amarillo, Texas

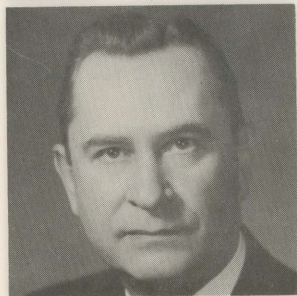


DONALD C. COLLINS, M.D., Hollywood, California

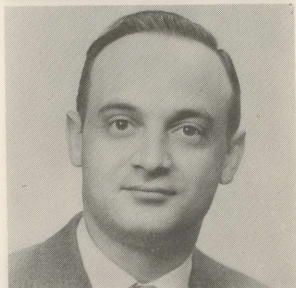
University of California Medical School; Assistant Professor of Surgery, Department of Surgery, College of Medical Evangelists; Consultant in Surgery at St. Joseph's Hospital; Surgical staff of the Los Angeles County General Hospital and Hollywood-Presbyterian Hospital; Former Chief of Surgical Services at Hollywood Presbyterian Hospital.



RICHARD B. KOEFOOT, M.D.,
Broken Bow, Nebraska
University of Nebraska College of
Medicine; Surgeon, Broken Bow
Clinic.



LEO H. KUKER, M.D.,
Carroll, Iowa
State University of Iowa; Chief of
Surgery, St. Anthony Hospital.



GEORGE W. FERENZI, M.D.,
Chicago, Illinois
Clinical Associate, Department of
Medicine, Stritch School of Medi-
cine of Loyola University, Chicago,
Illinois; Associate Attending Physi-
cian, Mercy and Cook County Hos-
pitals, Chicago, Illinois; Consultant,
Department of Medicine, Holy
Cross and South Chicago Hospitals,
Chicago, Illinois and Little Com-
pany of Mary Hospital, Evergreen
Park, Illinois.



DAVID E. DAVIDOFF, M.D.,
Milwaukee, Wisconsin
Washington University School of
Medicine; Chief of Surgery, Me-
morial Hospital; Teaching Staff, St.
Luke's, St. Michael's and Mount
Sinai Hospital; former Kirstein Fel-
low in Surgical Research, Harvard;
Surgeon, Courtland Medical Cen-
ter, Milwaukee.

BE SURE TO VISIT THE EXHIBIT AREA

UROLOGICAL COMPLICATIONS FOLLOWING ABDOMINAL SURGERY

8:30 A.M. - 10:00 A.M.
GRAND BALLROOM

Moderator:

C. RICHARD A. GILBERT, M.D., Chevy Chase, Md.

Collaborators:

Repair of Vesical Vaginal Fistula following Pelvic Surgery or Irradiation

RICHARD C. HAYDEN, M.D., Wilmington, Delaware

Acute Retention following Abdominal Perineal Resection

URQUHART L. MEETER, M.D., Kenosha, Wisconsin

Acute Renal Shutdown — Post Operative

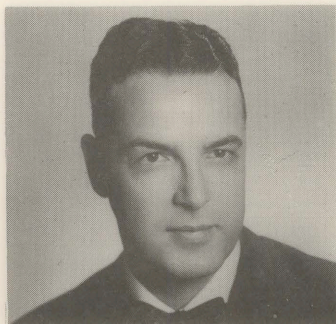
WILLIAM M. ROSS, M.D., Chicago, Illinois

Treatment of Urological Tract Injuries Caused by Pelvic Surgery

JOHNNIE R. BETSON, JR., M.D., 4800 Gibson Boulevard, SE, Albuquerque, New Mexico

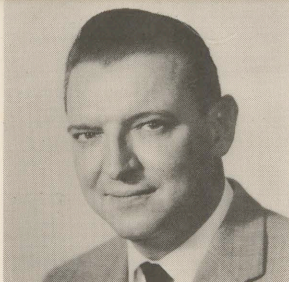
Prevention of Injuries to the Ureter at the Time of Pelvic Node Dissection

C. RICHARD A. GILBERT, M.D., Chevy Chase, Maryland



C. RICHARD A. GILBERT, M.D., Chevy Chase, Md.

University of Virginia, Department of Medicine, Former Assistant Clinical Professor of Gynecology, University of Puerto Rico Medical School; Chief, Female Abdominal Surgery at Ryder Memorial Hospital, Humacao, P.R., and Former Consultant, U.S. Air Force for Gynecology and Female Urology.



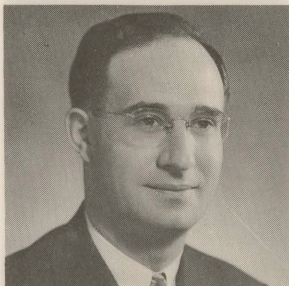
RICHARD C. HAYDEN, M.D.,
Wilmington, Delaware

University of Maryland Medical School; Chief of Obstetrics and Gynecology, Wilmington General, St. Francis and Memorial Hospital, Wilmington.



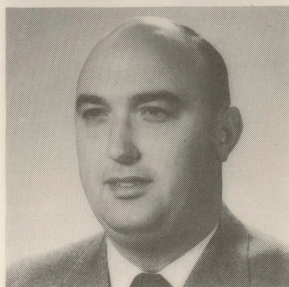
URQUHART L. MEETER, M.D.,
Kenosha, Wisconsin

University of Iowa Medical School; former Chief of Urology, Keesler Air Force Base Hospital, Mississippi.



WILLIAM M. ROSS, M.D.,
Chicago, Illinois

Senior Urologist and Head of Urology Department, Holy Cross Hospital; Urologist, Little Company of Mary Hospital; Consulting Urologist, Ingalls Memorial Hospital.



JOHNNIE R. BETSON, JR., M.D.,
Albuquerque, New Mexico
University of Oklahoma School of Medicine; Head, Department of Gynecology and Obstetrics, Bataan Memorial Methodist Hospital, Albuquerque; Consultant, Gynecology and Obstetrics, U.S.P.H.S. Indian Hospital, Fort Defiance, Arizona; Consultant, Gynecology, Veterans Administration Hospital, Albuquerque; Attending Staff, Gynecology and Obstetrics, Bernalillo County Indian Hospital, Albuquerque.

BE SURE TO VISIT THE EXHIBIT AREA

PROBLEMS OF EVALUATION AND CONTROL OF QUALITY IN SURGERY IN A COMMUNITY HOSPITAL



Friday, April 6, 1962

PANEL DISCUSSION

10:30 A.M - 12:00 NOON

GRAND BALLROOM

Moderator: KEITH G. WURTZ, M.D., Consulting Surgeon
Northwest Community Hospital, Arlington Heights, Illinois

Panel: CONSTANTINE SODER, M.D., Radiologist
Northwest Community Hospital, Arlington Heights, Illinois
THOMAS HARWOOD, M.D., Pathologist
Northwest Community Hospital, Arlington Heights, Illinois
ALAN CAMPBELL, Administrator
Northwest Community Hospital, Arlington Heights, Illinois

PROBLEM

SOLUTION

Unethical Financial Arrangements Fee splitting Ghost surgery Itinerant surgery Exorbitant fees Surgical assistants fees	Medical ethics are discussed with the hospital Board of Trustees and Medical Staff. Good medical ethics are enforced.
Unintentional lack of awareness of surgery abilities by the staff	Surgical Privilege Committees
Inadequate preoperative and post-operative care Unnecessary surgery Patient grievances	Local Tissue and Audit Committee Professional activity studies comparing different hospitals Autopsy rate
Rapid increase in medical knowledge	Required post-graduate medical education Tumor Committee Infection Control Committee
Inadequate hospital facilities and personnel	Joint Administrative Medical Staff Committee In-service education program

SURGICAL FILM PROGRAM

1962 Clinical Congress of Abdominal Surgeons

MONDAY, APRIL 2, 1962

GENERAL SURGERY

8:30 A.M. — ACUTE GALL BLADDER DISEASE

Cholecystostomy should be done more frequently in aged, poor risk patients, with subsequent cholecystectomy.

9:00 A.M. — RADICAL MASTECTOMY FOR CARCINOMA OF THE BREAST

Depicts technique for biopsy and methods to decrease dissemination by biopsy. Technic of mastectomy as well as excision of an internal mammary lymph node for biopsy is shown.

9:27 A.M. — COMPLICATED APPENDICITIS

Operative management of appendicitis in varied locations. Adequate exposure is emphasized, errors in technic are shown. Handling of immediate and late complications described.

9:55 A.M. — EMERGENCY SURGERY OF THE ACUTELY INJURED

Head, thoracic, abdominal and extremity injuries are described. Neurologic survey, exploratory thoracotomy, bladder and colon wounds and primary suture of femoral artery are demonstrated.

10:28 A.M. — CARDIAC ARREST

With proper immediate treatment every normal heart is potentially capable of salvage.

10:56 A.M. — FORTY CAUSES OF ACUTE ABDOMINAL PAIN

The many causes of abdominal pain as seen at the bedside, the operating room, the surgical pathology laboratory and the morgue.

BILIARY

1:30 P.M. — CHOLEDOCHOJEJUNOSTOMY FOR RESTORATION OF BILIARY DRAINAGE

Alcholedochojejunostomy had ceased to function; steps and surgical principles for repair as well as intraoperative cholangiography are shown.

2:01 P.M. CHOLECYSTECTOMY AND EXPLORATION OF THE COMMON BILE DUCT

A standard operation of gall bladder removal and common bile duct exploration.

2:23 P.M. — COMMON DUCT STONES

Indications for common duct exploration. Approach to identification of common duct, transduodenal extraction of impacted stone, and T-tube drainage.

2:51 P.M. — INDICATIONS AND TECHNIC OF RIGHT HEPATECTOMY

This operation is aided by hypothermia, transfusion and electrolyte balance. Technical and metabolic problems are illustrated.

3:16 P.M. — REPAIR OF THE INJURED COMMON DUCT

The method of choice is end to end anastomosis over a T-tube. The Kocher Maneuver mobilizes the duodenum. Hepaticojejunostomy may be necessary.

TUESDAY, APRIL 3, 1962

COLON AND RECTUM

8:00 A.M. — I DRESS THE WOUND

A historical film from Ambrose Pare to surgery today.

8:30 A.M. — TRANSABDOMINAL HYSTERECTOMY FOR BENIGN DISEASE

Uterine disease involving other structures are illustrated, surgical management of these is best undertaken by the abdominal surgeon.

9:00 A.M. — SURGICAL TREATMENT OF DIVERTICULITIS OF THE SIGMOID

Stages of pathology, indications for surgery and type of operation needed are shown.

9:34 A.M. — VOLVULUS OF THE SIGMOID COLON

Etiology, diagnosis and surgical management are shown. Techniques are fixation or resection of the redundant sigmoid.

10:05 A.M. — SURGICAL TREATMENT OF PROLAPSE OF THE RECTUM

One-stage perineal operation illustrates that rectal prolapse is a sliding hernia through a defect in the pelvic diaphragm.

10:37 A.M. — ONE STAGE PAN-COLECTOMY FOR ULCERATIVE COLITIS

Massive hemorrhage, fulminating colitis or irretrievable damage are indications for operation. Lithotomy-Trendelenburg position requires no change in position or redraping. Umbilicus is excised and ileostomy is brought out through the midline. Plastic ileostomy bag is immediately attached at operation.

10:59 A.M. — DIVERTICULITIS

Emergency resection for massive hemorrhage. Post-operative complication solved by secondary operation.

PANCREAS

1:30 P.M. — THE SURGICAL MANAGEMENT OF CALCIFIC PANCREATITIS

The calcareous deposit is intraductal. Three cases representing differing problems.

1:53 P.M. — THE SURGICAL TREATMENT OF PANCREATIC PSEUDOCYSTS

Internal drainage, sphincterotomy and pancreatogram are shown in three illustrative cases.

2:31 P.M. — CAUDAL PANCREATICOJEJUNOSTOMY FOR CHRONIC (RELAPSING)

Careful criteria for selecting patients, plus standardized technique has afforded striking relief for prolonged periods of time.

3:03 P.M. — HYPERINSULINISM, ISLET CELL ADENOMA OF THE PANCREAS

Differential diagnosis discussed. Exposure and anatomy demonstrated. Exposure resembles that of a portacaval shunt.

3:34 P.M. — OPERATIONS FOR CORRECTION OF CONGENITAL BILIARY ATRESIA

Biliary obstruction in infancy may follow hepatitis or may be congenital. Cholangiography, methylene blue injection and frozen section biopsy are useful.

WEDNESDAY, APRIL 4, 1962

8:00 A.M. — MECONIUM PLUG-SYNDROME

Meconium plug obstruction is rare in the newborn infant and diagnosis is difficult. Treatment also presents problems, four types of obstruction are presented.

FILM FORUM PROGRAM

The following films will be narrated by the authors and discussed with the audience.

8:30 A.M. — SIMPLIFIED TECHNIQUE OF TOTAL ABDOMINAL HYSTERECTOMY

Ernest F. Purcell, M.D.

8:50 A.M. — VAGINAL HYSTERECTOMY FOR PROLAPSED UTERUS

William H. Mast, M.D.

9:20 A.M. — GASTRIC RESECTION

G. Stanley Gordon, M.D.

Discussion by William P. Corriero, M.D.

10:20 A.M. — RADICAL RESECTION OF ISCHIAL TUBEROSITIES
IN PARAPLEGIA

J. Treacy O'Hanlan, M.D.

10:50 A.M. — MULTIPLE HEMOSTAT TECHNIQUE

Salvatore A. Certo, M.D.

11:30 A.M. — URETERO-ILEO-URETHRO-ANASTOMOSIS

George T. Mellinger, M.D. (Sound Track)

1:30 P.M. — TRAUMATIC HERNIA OF THE DIAPHRAGM

Problems presented by accidents include acute critical emergencies and late effects; x-ray, surgical and autopsy findings are given.

1:56 P.M. — HERNIAS IN INFANTS AND CHILDREN

Diagnosis and operative techniques for inguinal and umbilical hernias of children are diagrammatically described and discussed in detail.

2:28 P.M. — THE REPAIR OF VENTRAL HERNIA

Adjunct preoperative treatment simplifies the repair of incisional herniae which usually occur in obese persons through vertical incisions. No one method of repair is universally satisfactory.

2:54 P.M. — FEMORAL HERNIA WITH NECROTIC BOWEL

Mortality of strangulated femoral hernia remains high. Division of the inguinal ligament permits an intact sac, an aseptic anastomosis, a clean field.

3:22 P.M. — REGIONAL ENTERITIS

Etiology, anatomy and symptoms of Regional Enteritis are presented, as well as indications for surgery. Operations on three patients with localized, diffuse and recurrent ileitis.

3:42 P.M. — INTESTINAL OBSTRUCTION IN THE NEWBORN AND INFANT

Drawings and operation of various types of obstruction in this age group.

THURSDAY, APRIL 5, 1962

UROLOGY

8:05 A.M. — STAPHYLOCOCCAL INFECTIONS IN SURGERY

Breaks in technique that lead to Staph infection are shown, means of correction suggested.

8:35 A.M. — DISINFECTION OF THE SKIN

Covers all phases of skin disinfection of both patient and operating room personnel. Demonstrates procedures, explains theory.

9:00 A.M. — THORACO-ABDOMINAL NEPHRECTOMY

This approach allows excellent exposure, permits early occlusion of the vascular pedicle, and complete removal of the neoplasm.

9:27 A.M. — TRANSABDOMINAL ADRENALECTOMY FOR ENDOCRINE DISEASE

Anterior abdominal approach permits inspection of both adrenals through one incision as well as examination for ovarian disease. This film depicts subtotal adrenalectomy for Cushing's disease in a young woman.

9:53 A.M. — THE STORY OF RENAL CALCULI

Preoperative investigation that establishes underlying causative factor. Surgical removal is either by pelvolithotomy, nephrolithotomy or by resection of lower pole of kidney. Postoperative regimen to minimize recurrence is described.

10:26 A.M. — THE URETER IN COLON SURGERY

Expose and identify the ureter to prevent injury. This is necessary in radical surgery for carcinoma as well as diverticulitis. Preservation of the ureter is demonstrated.

10:46 A.M. — RADICAL WERTHEIM OPERATION

Radical abdominal hysterectomy with bilateral pelvic lymphadenectomy.

11:13 A.M. — CANCER CHEMOTHERAPY BY PERFUSION

The technic of perfusion of the lower extremity for melanoma with illustrative cases.

STOMACH

1:30 P.M. — VAGOTOMY, PYLOROPLASTY, AND SUPRA-ANTRAL SEGMENTAL GASTRECTOMY FOR DUODENAL ULCER

Control ulcerogenic mechanisms but conserve gastrointestinal function. Antral preservation is desirable! Vagotomy and resection reduces acid production. Colored diagrams present a summary of ulcer-producing mechanisms; modern ulcer operations are analyzed.

2:05 P.M. — SURGICAL EXPLORATION FOR OBSCURE MASSIVE UPPER GASTRO-INTESTINAL HEMORRHAGE

Systematic steps in exploration reduce the need for a "blind gastrectomy" which risks overlooking the actual source of bleeding.

2:35 P.M. — GASTRIC ULCER OR CARCINOMA RECOGNITION AND TREATMENT

Up to 20 percent of gastric ulcers are malignant especially at antrum and greater curvature. Resect gastric ulcer.

3:05 P.M. — HANDLING THE DUODENAL STUMP IN GASTRIC SURGERY

The difficult duodenal stump may cause severe postoperative complications. Inflammation may distort the

vital structures about the duodenal ulcer, but it can be safely handled.

3:35 P.M. — TOTAL GASTRECTOMY WITH JEJUNAL INTERPOSITION

Jejunum to replace the stomach, reestablishes continuity. Splenectomy and omentum excision is performed in operation for gastric malignancy.

FRIDAY, APRIL 6, 1962

8:10 A.M. — EXTERNAL CARDIAC MASSAGE

The recently developed method of resuscitation with external cardiac massage, now standard practice for combatting sudden death, is demonstrated.

8:30 A.M. — SMALL BOWEL RESECTION FOR POST-RADIATION OBSTRUCTION

Terminal ileum obstruction three years after radiation for Ca of the cervix. Segmental resection, end to end anastomosis.

9:00 A.M. — TWO-TEAM PELVIC EXENTERATION

Positioning the patient to operate simultaneously through the perineum and abdomen allows bloc dissection, construction of ileal urinary conduit, and placement of the pelvic support.

9:34 A.M. — SIDE-TO-SIDE PORTACAVAL SHUNTS

Hemodynamics of the various shunts between the portal and systemic venous systems is discussed. Technic of side-to-side portacaval shunt is demonstrated.

10:03 A.M. — PERITONITIS: SOME CAUSES AND MANAGEMENT

Perforated peptic ulcer, small bowel obstruction and left colon obstruction are demonstrated. Principles of management are summarized.

10:23 A.M. — DUODENAL OBSTRUCTION IN INFANCY

Modern pediatric care permits operative correction of the congenital deformities formerly fatal. Techniques for diagnosis and surgical treatment of duodenal obstruction are shown.

10:56 A.M. — PROCEDURE OF CHOICE IN DUODENAL PROBLEMS

The newer procedures have been elevated. The choice depends on preoperative study and operative findings, solving the problem on a physiological basis.

11:18 A.M. — FLUID BALANCE IN GASTRO-INTESTINAL SURGERY

Techniques of gastrostomy, common-duct drainage and ileostomy are shown, and problems created by the loss of digestive juices is considered. Pre- and postoperative management are also shown.

Acknowledgment: The above films were made available from the Surgical Film Library of American Cyanamid Company.

TECHNICAL EXHIBITORS

	BOOTH
Aeroplast Corporation	26
American Sterilizer Company	6 & 7
A. S. R. Products Company	4
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Miller Surgical Company	18
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SCIENTIFIC EXHIBITS

	A
Thomas G. Baffes, M.D. "Hypothermia in General Surgery"	33
Basdeo Balkissoon, M.D., Mitchell W. Spellman, M.D., Earl S. Herr, B.S. "Blood Volume and Liver Measurement by Rose Bengal"	31
B. L. Burditt, M.D. "Use of the Chaffin Tube in Abdominal Surgery"	29
Walter A. D'Alonzo, M.D. "The Role of Vagotomy in the Surgical Control of the Duodenal Ulcer"	32
George Osborne, M.D. "A Device for Retaining a Prolapsed Colostomy"	30
Henry A. Springer, M.D. "Restoration of Physiological Function Following Treatment for Pelvic Hernias"	2

Booth 1

Baxter Laboratories, Inc.

Members and guests of the Clinical Congress of Abdominal Surgeons are cordially invited to visit us at our booth. Representatives of Baxter Laboratories and our Travenol Laboratories Division will be on hand to demonstrate and answer questions regarding our latest developments in the field of parenteral fluid therapy and administration equipment.

Booth 2

Henry A. Springer, M.D., Meeker Clinic, 869 Ludlow Ave., Cincinnati 20, Ohio

(Scientific Exhibit)

Restoration of Physiological Function Following Treatment for Pelvic Hernias.

1. Incisional Hernias
2. Pelvic Hernias
3. Vaginal Prolapse

Booth 3

Meeker Products

The commercial exhibit will be limited to a display of new equipment that has been developed and is being used by surgeons in our community.

The following equipment will be on display:

1. A Fascia Cutter and Cutter.
2. A Focused Headlight.
3. A Portable Proctologic Table.
4. A Sacral Rest.
5. A Biopsy Punch with Suction.
6. Special Pelvic Instruments.
7. A Skin Grafting Knife.

Booth 4

A. S. R. Products Company

American Safety Razor Company will present Steri Sharps, the first Stainless Steel Sterile Surgical Blades — packaged in color coded boxes for ready size identification.

Also shown will be the newest development in surgeon's handles — the A. S. R. Surgeon's Handles with Push-Button Blade Release for safe, fast, convenient blade removal.

Booth 5

The Williams & Wilkins Company

On display for your inspection are recent Williams & Wilkins works of interest. All of the published parts of David L. Bassett's full-color, three-dimensional "Stereoscopic Atlas of Human Anatomy" will be shown: these include Section VI (just released), Pelvis; Section V; Abdomen; Section IV, Thorax; Section III, Upper Extremity; Section II, Head and Neck; and Section I, Central Nervous System.

Booths 6 & 7

American Sterilizer Company

American Sterilizer Company will exhibit three newly introduced products indicated for abdominal surgery. Amsco power controlled OPERATING TABLE, model 1080L features smooth, positive power articulation through the full posturing range. An improved SURGICAL LIGHT, model EMCA provides 34" dia. reflector mounted to a 9' extruded aluminum track. To transfer the patient smoothly from bed to operating table, x-ray, etc. Amsco introduces its new PATIENT TRANSFER SYSTEM featuring the revolutionary TRANCAR. One nurse transfers 300 pound patient horizontally . . . in less than two minutes — without disturbing patient.

Booth 8

The Upjohn Company

Professional representatives of The Upjohn Company are eager to contribute to the success of your meeting. We are here to discuss with you products of Upjohn research that are designed to assist you in the practice of your profession. We solicit your inquiries and comments.

Booth 9

Ohio Chemical & Surgical Equipment Co.

STILLE SURGICAL INSTRUMENTS.

(Distributed Exclusively in U.S.A. by Ohio Chemical & Surgical Equipment Co.)

A cordial welcome from James M. Burns awaits you in our booth. Among the vast array of instruments you will see new and improved items for abdominal surgery. We invite you to inspect and handle them so you may personally notice the excellent heft and balance inherent in Stille Instruments.

Booth 10

Guardian Chemical Corporation

The company will exhibit CLORPACTIN XCB for destroying viable tumor cells in cancer surgery as well as CLORPACTIN WCS-90 for irrigation of the surgical field to prevent postoperative infections and to treat existent antibiotic infections which can be reached by irrigation or instillation with the drug.

Booth 11

Cameron Surgical Instruments Company

See our new Electrosurgical Units. Modern in every detail, Cameron Electrosurgical Units make surgery convenient, safe and practical.

We will also display Snares, Suction Coagulation Electrodes, Electrically Lighted Diagnostic Equipment, Grasping Forceps, Biopsy Punches and many other items sure to please.

Booth 12

The Warren-Teed Products Company

The Warren-Teed Products Company will feature: ILOPAN®—an injectable d-pantothenyl alcohol for the treatment and prevention of flatulent gastrointestinal distention. ILOPAN-CHOLINE®—an oral therapy for gastrointestinal gas retention in ambulatory patients. KAON® ELIXIR—an extremely palatable oral potassium. MO-DANE® TABLETS—a deconstipant for relief and rehabilitation of the atonic bowel.

Booth 13

S. H. Camp & Company

An entirely new concept in surgical garments will be on display, consisting of a new treatment for low back pain by pressurized therapy.

Based on the principle of the space suit used by jet pilots, it has an inflated pad covering the entire lumbar area. This pressurized support is used for conditions of low back pain such as osteo-arthritis of the lumbar spine, rheumatoid spondylitis, sciatica, sacro-iliac strain, herniated intervertebral disc, wear and tear of the lower back muscles, angina and arteriosclerosis of the arteries in the pelvis which can produce pain in the buttocks as well as in the lower back.

You will be surprised by the simplicity of operation. When worn it is not discernible on the patient. Do not miss seeing this new innovation for low back syndrome.

Also see the other new Camp supports and appliances.

Booth 14

George P. Pilling & Son Co.

Pilling will show a well balanced variety of surgical instrument specialties. One of the most interesting features is the variety of "standard pattern" forceps and clamps embodying the Pilling Atraugrip jaws which are noncutting and non-traumatic, yet so secure even under pressure that the surgeon has additional "working space," a great advantage in many phases of surgery.

Booth 15

W. B. Saunders Company

Surgical books of special interest published by Saunders in the last year include: Lore: An Atlas of Head and Neck Surgery; Dripps et al: Anesthesia; and O'Donoghue: Athletic Injuries. Saunders publishes both the Surgical Clinics of North America and the Journal of Surgical Research.

Booth 16

Lloyd Brothers, Inc.

Welcome to the Lloyd Brothers exhibit. Our professionally trained sales representatives will be pleased to greet you and discuss the merits of our products in your practice. Of particular interest will be a new booklet on erythropoietin, the erythropoietic hormone.

Booth 17

Encyclopaedia Britannica

A great New Edition of the Encyclopaedia Britannica and its correlated fact finding and technical research services will be on display at this meeting.

To those who may be interested in acquiring the Britannica, there will be available a special exhibit offer.

Whether your interest is current or for the future, please visit our booth.

You do not need to invest to investigate.

Booth 18

Miller Surgical Company

See the Miller Electro-scalpel, Mark C, the Miller Radiotherm and Miller Surgidyne (Tube & Spark Gap Unit). These cutting, coagulating and desiccating units are calibrated to do the most delicate work as well as light major surgery.

Accessories such as Snares, Coagulator with smoke ejector, Suction Tubes and Grasping Forceps, also available. Also a long outstanding line of Diagnostic equipment consisting of Illuminated Oscopes, Headlites, Vaginal Speculum with smoke ejector and Gorsch designed stainless steel Proctoscopes and Operating scopes, all sizes with magnification.

Available also, the Variable Wall Rayostat which converts battery operated equipment to electric.

Booth 19

Coreco Research Corporation

The Coret Camera embodies the principle of electronic flash and constant automatic control of such factors as distance, aperture, field, and exposure. Now, for the first time, Coreco offers a completely automatic professional clinical camera purposely designed to achieve the ultimate in surface, intra-oral, and intra-tubular photography. Because of the simplicity of operation, even an inexperienced doctor or nurse can achieve consistently perfect color transparencies.

Booth 20

Tessco Jewelry Creations

THE CORUM MEDICUS: The physician's watch with pulsometer has 17 jewels, unbreakable mainspring, is shockproof and guaranteed for one year. THE watch has been designed as THE presentation award to a dedicated doctor or graduating medical student. Available in a variety of ultra thin styles, manual, automatic or with calendar.

Booth 21

Lawton Company, Inc.

The Lawton exhibit will include a number of new intestinal instruments. Features will be resection clamps, colon clamps, and the new Ford Deaver retractors with 3" and 4" wide blades. These retractors are particularly useful in repair of abdominal aorta, vagotomy, esophageal and upper abdominal surgery. Also shown will be the non-traumatic Walton-Allis tissue forceps.

Booth 22

Roche Laboratories

Among the products which we shall feature at this meeting are: Gantanol—a single sulfonamide for the common bacterial infections encountered in daily practice. Librium—a therapeutic agent for superior, safer, faster control of nervousness, anxiety, tension and other common emotional disturbances without the dulling effect or depressant action of the tranquilizers. Librax—a formulation of Librium and Quarzan for the control of gastrointestinal disorders and associated emotional symptoms. A convenient single-capsule formulation of Librium, specific for all degrees of anxiety and tension, and Quarzan, the new, highly effective Roche anticholinergic.

Booth 23

Great Books of the Western World

Great Books of the Western World with the amazing Syntopicon, modern, space-age key to knowledge. Here is the accumulated wisdom of mankind made instantly accessible to anyone through the Syntopicon—the modern idea-index. These works are a tremendous help for business, professional men, students, or anyone who speaks, writes, and communicates with others.

Booth 24

Audio-Digest Foundation

Audio-Digest Foundation (a nonprofit subsidiary of the California Medical Association), gives the busy physician a time-saving tour through the best of some 600 current medical journals, plus the highlights of scores of national meetings. Time-proven, but still unique—these medical tape-recorded services are now offered in six series—General Practice (issued weekly and bi-weekly), and Pediatrics, Internal Medicine, Surgery, Obstetrics and Gynecology, Anesthesiology (all issued semi-monthly). Digest subscribers listen in their car, home or office. Carefully selected tape equipment for playing the Digests is offered at the convention by Pacific Medical Equipment Company, the authorized Audio-Digest sales outlet.

Booth 25

Ethicon, Inc.

Tru-Chromicized, Tru-Gauged, Collagen Pure properties of ETHICON* surgical gut, electron beam sterilized in easy-open foil packages, in sterile wet or dry put-ups, will be demonstrated, along with a complete line of ATRALOC* needle sutures. New LIGAPAK* reel for ligating will be featured as will a full line of MERSILENE* polyester fiber sutures.

* Trademark

Booth 26

Aeroplast Corporation

New STERILE—READY TO USE—Vi-DRAPE® film will be featured. (We have a new smaller size roll, too!) We cordially invite you to visit our booth to discuss these product improvements. Of course, our other clinically established aids to improved asepsis, VEHESIVE® Surgical Adherent and AEROPLAST® Dressing, will be shown.

Booth 27

Paul B. Hoeber, Inc.

Of special interest to all attending the Congress is Allen & Barrow's *Abdominal Surgery*, copies of which are on display at our booth for your inspection. Among the other books are the first five volumes in Pack & Ariel's *Treatment of Cancer and Allied Diseases*, Hurwitz & Dagenshein's *Milestones in Modern Surgery*, and Hollinshead's three-volume *Anatomy for Surgeons*.

Booth 28

Merck Sharp & Dohme

The theme of the Merck Sharp & Dohme exhibit is "SERVICE TO MEDICINE." One phase features the details of the Merck Sharp & Dohme Postgraduate Program. Another feature includes information on teaching films for use by the profession, and also, lay films that can be utilized to portray the story of medicine to the lay public. The exhibit is concluded with a display of finger-tip files on selected Merck Sharp & Dohme products.

Booth 29

B. L. Burditt, M.D., Nightingale Memorial Hospital, Del Rio, Texas
(Scientific Exhibit)

USE OF THE CHAFFIN TUBE IN ABDOMINAL SURGERY

Booth 30

(Scientific Exhibit)

George Osborne, M.D., Veterans Administration Hospital, Lake City, Florida

A DEVICE FOR RETAINING A PROLAPSED COLOSTOMY

Booth 31

(Scientific Exhibit)

Basdeo Balkissoon, M.D., Mitchell W. Spellman, M.D., Earl S. Herr, B.S., Department of Surgery, Howard University, School of Medicine, Washington, D.C.

BLOOD VOLUME AND LIVER MEASUREMENT BY ROSE BEN-GAL — 1-131

Booth 32

(Scientific Exhibit)

Walter A. D'Alonzo, M.D., St. Joseph's Hospital, Philadelphia, Pa.

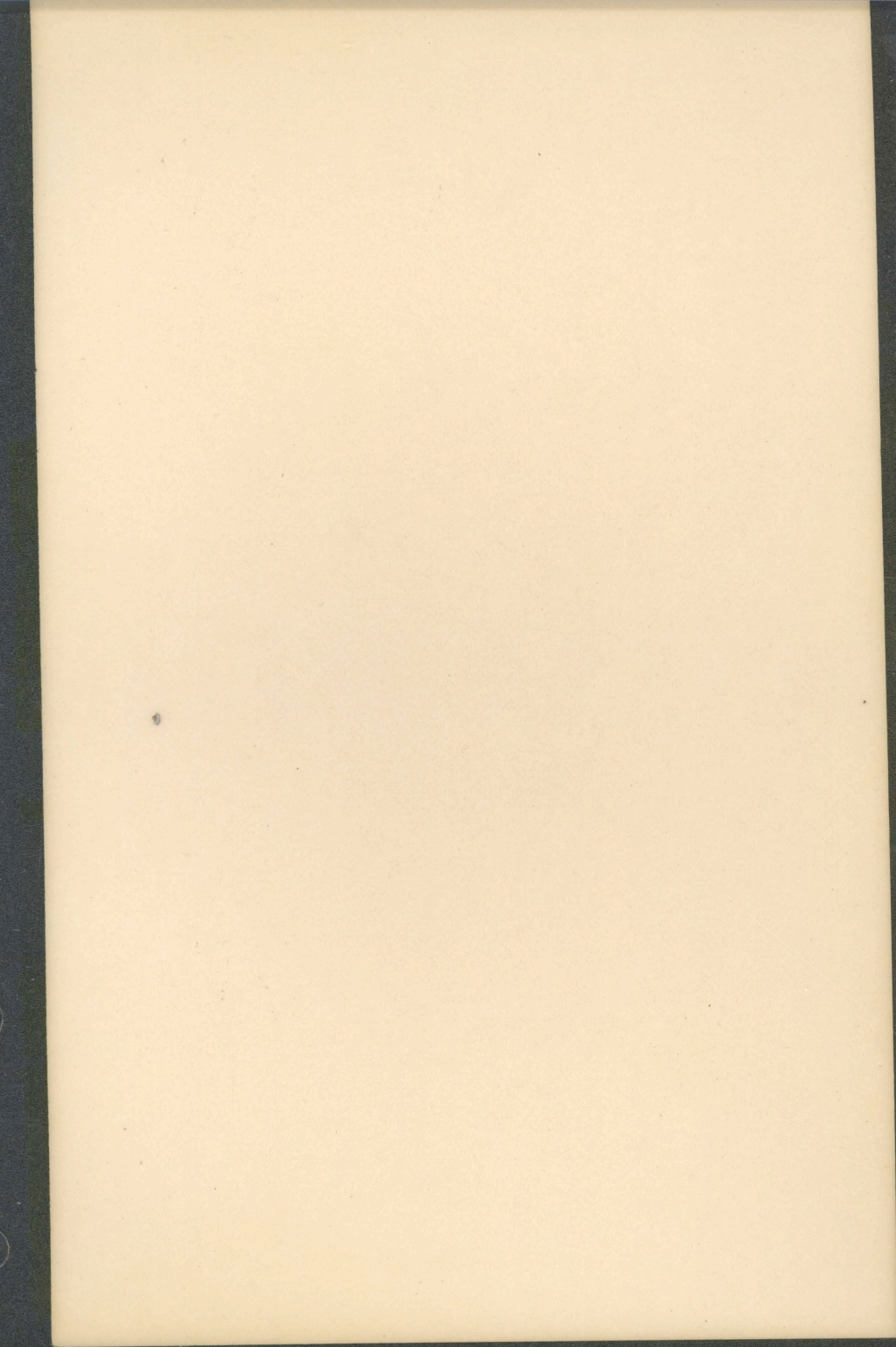
THE ROLE OF VAGOTOMY IN THE SURGICAL CONTROL OF THE DUODENAL ULCER.

Booth 33

(Scientific Exhibit)

Thomas G. Baffes, M.D., Fabian H. Ketola, M.D., W. Joseph Potts, M.D., Constantine Tatoes, M.D., Chicago, Illinois

HYPOTHERMIA IN GENERAL SURGERY



SPECIAL EVENTS

SUNDAY, APRIL 1, 1962

- 8:00 A.M.-11:00 A.M. Old Chicago Room
Meeting of the Advisory Council on Surgical Education
- 11:00 A.M. Louis XVI Room
American Board of Abdominal Surgery
Board of Governors Meeting
- 2:00 P.M. Grand Ballroom
Meeting of the American Society of Abdominal Surgeons

MONDAY, APRIL 2, 1962

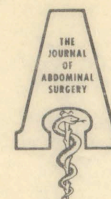
- 6:30 P.M.-7:30 P.M. Grand Ballroom
Social Hour — Hors d'oeuvres, Cocktails (Hotel Bar)

WEDNESDAY, APRIL 4, 1962

- 12:00 NOON-1:15 P.M. — Dragstedt Luncheon Louis XVI Room
Sponsored by William H. Rorer, Inc.
"My First Vagotomy"
Lester R. Dragstedt, M.D.
- 7:00 P.M. Grand Ballroom
Annual Banquet
Distinguished Service Award
Achievement Awards
Dancing
(Informal Dress)

THURSDAY, APRIL 5, 1962

- 12:15 P.M. — Luncheon Louis XVI Room
"The Surgeon and the Law"
Honorable Felix Forte, Justice, Superior Court of
Massachusetts



The Dawn of Abdominal Surgery

MARION J. HAMLIN

ABDOMINAL SURGERY HAS DEVELOPED RAPIDLY since the beginning of this century. A firm background in the knowledge of the past gives us a clearer understanding of the present, and through this we can clearly see the path by which the present status of Abdominal Surgery was reached.

Abdominal Surgery was born with tremendous idealism. It arose above the commonplace of the day and gave hope to all mankind. It has been built on scientific and human values of the highest order. Abdominal Surgery became the unbridled triumph of many individuals pursuing many efforts. This is the heritage that the past has given the Abdominal Surgeon of today and the legacy that will be given the Abdominal Surgeon of tomorrow.

Abdominal Surgery in America secured recognition by its very forthrightness and its originality. The durable American fibre, so important to the future of Abdominal Surgery has never been weakened. In Abdominal Surgery the Americans have led the world. Had it not been for the epoch-making abdominal operation of Ephraim McDowell (1771-1830), Father of Abdominal Surgery, in 1809, this branch of surgery would have been much retarded.

THE SURGEON

Dr. Ephraim McDowell, Founder of Abdominal Surgery, was born in Virginia on November 11, 1771. At the age of twenty, because of his avid interest in medicine, he went to study with a Virginia practitioner, Dr. Alexander Humphreys, with whom he remained for three years. In 1793, like many young American doctors of this period, McDowell went to Edinburgh in order to round out his medical studies. He enrolled in the private lectures of John Bell in anatomy and surgery.

Dr. McDowell returned to Kentucky in 1795 and when in 1809 he undertook the first and great

historical abdominal operation, he was already known as an accomplished and well trained surgeon.

THE SURGERY

In 1809 it was considered fatal to open the abdominal cavity. John Bell, Hunter, Hey and A. Wood, four of the most eminent surgeons in England and Scotland had uniformly declared in their lectures that to open the abdomen meant inevitable death. Despite the protests of his colleagues, Dr. McDowell was ready to undertake the case of Mrs. Jane Todd Crawford. The heroic Mrs. Crawford, who was forty-seven at the time of the operation, after being informed of the dangers involved, urged Dr. McDowell to proceed with the surgery.

Aseptic technique and anesthesia had not come into being. Rubber gloves, surgical masks, sterilized instruments and germ-free gowns were not in use. There was but Dr. McDowell's surgical skill and his fervent prayer that his hands be guided and his patient's life be spared. The abdominal operation was accomplished thus, according to the written record of the surgeon:

"Made an incision about three inches from the musculus rectus abdominis, on the left side, continuing the same nine inches in length parallel with the fibres of the above mentioned muscle, extending into the cavity of the abdomen, the parietes of which were a good deal contused, which we ascribed to the resting of the tumor on the horn of the saddle during her journey. The tumor then appeared in full view, but was so large that we could not take it away entire. We put a strong ligature around the Fallopian tube near the uterus, and then cut open the tumor, which was the ovarian and fimbrious part of the Fallopian tube very much enlarged. We took out fifteen pounds of a dirty, gelatinous-looking substance, after which we cut through the Fallopian tube and extracted the sack, which weighed seven and one-half pounds. As soon as the external opening was made the intestines rushed out upon the table, and so completely was the abdomen filled with tumor that they could not be replaced during the operation, which was termi-

Secretary, Woman's Auxiliary to the American Society of Abdominal Surgeons.

nated in about twenty-five minutes. We then turned her on her left side, so as to permit the blood to escape, after which we closed the external opening with interrupted suture, leaving out, at the lower end of the incision, the ligature which surrounded the Fallopian tube. Between every two sutures we put a strip of adhesive plaster, which by keeping the parts in contact, hastened the healing of the incision. We then applied the usual dressings, put her to bed, and prescribed a strict observance of the antiphlogistic regimen. In five days I visited her and much to my astonishment found her engaged in making up her bed. I gave her particular caution for the future, and in twenty days she returned home in good health."

THE CONTROVERSY

Controversy concerning Abdominal Surgery was evident preceding the operation. European surgeons felt it foolhardy to expose the abdominal viscera to the surgeon's knife. Lay people believed no honest physician would attempt, what they believed to be the impossible. So it was that during the tense moments of the surgery an angry crowd of excited townspeople gathered outside the cabin where the procedure was being performed, ready to lynch Dr. McDowell in the event that he failed. The operation was a success and the crowd dispersed with awe and wonder at his magnificent feat.

In 1816, after he had performed similar successful abdominal operations, Dr. McDowell finally documented his successful results in Abdominal Surgery. His paper did not shed the enlightenment that it should have. Educated men chose to ridicule his report and question whether his paper was the result of authentic surgery. Doubts arose as to whether he should be credited with this path-finding expedient of Abdominal Surgery. The controversy raged for years, not only in America but in Europe. For more than half a century leading British surgeons deplored the operation; French surgical authorities described it as a product of American audacity.

THE RECOGNITION

Recognition first came from Chrysmar in Germany in 1819 where he successfully performed the operation. In America, Nathan Smith in 1821 performed the McDowell operation in New Haven with excellent results. Recognized by Smith, a medical leader of the times, McDowell's efforts in Abdominal Surgery thus proceeded to attract a

favorable reaction. Finally in 1852, the case for Dr. McDowell as the Father of Abdominal Surgery was solidly documented by the great medical historian, Dr. Samuel D. Gross.

Dr. McDowell did not live to see his operation universally accepted. He died on June 20, 1830 at the age of 59 years. His death in today's opinion might be attributed to appendicitis. How ironical that his life might have been saved by the very developments in Abdominal Surgery in which he had the moral courage and surgical skill to pioneer.

In the 1880's, Sir James Paget, president of the Royal College of Surgeons gave credit to the McDowell operation with the following opinion:

"This operation is one of the greatest achievements of surgery in this century, and the gain is not limited to ovariectomy alone; the success of this operation has led to an extension of the whole domain of Abdominal Surgery. Surgeons act more boldly than before in operations involving the peritoneum, and the influence for good is not limited by the increased success of ovariectomy, but extends through many departments of operative surgery, and will always continue to be felt in the whole practice of surgery."

SUMMARY

The paths of history are lined by skeptics. The prejudiced and agnostic throughout the history of surgery retarded its progress. Those attempting scientific advancement in areas, which the surgeon of today takes for granted, were ridiculed.

The undying efforts of dedicated surgeons and their belief in a principle paved the way for the development of anesthesia, and asepsis. During this era of surgical achievements, which by their very nature overcame the criticism and bitter opposition, emerged the true scientific field of surgery. Abdominal Surgeons everywhere are proud of their forebearers who laid the foundation for modern surgery and continually strive to improve their chosen field. Abdominal Surgery, historically, is the foundation of surgery, as it is today the basic field of training for all fields of surgery. By his vigilance and courage, the Abdominal Surgeon has laid the foundation for all surgery.

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MEMORIAL OR

Removal of the Carotid Body in the Treatment of Asthma and Obstructive Emphysema

by

John Roberts Phillips, M.D., F.I.C.S.

Houston, Texas



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Removal of the Carotid Body in the Treatment of Asthma and Obstructive Emphysema

John Roberts Phillips, M.D., F.I.C.S.

Houston, Texas

Although the great majority of patients with asthma can be managed satisfactorily by medical regimen, 10 to 15 per cent will be controlled inadequately by this method. With an estimated four million cases of asthma in the United States, those figures present a real challenge. Since 1958 I have been intensely interested in general obstructive lung disease: emphysema, asthma and conditions that trigger asthma, such as chronic bronchitis and bronchiectasis. At that time I learned of Nakayama's use of

The author reports on his experience with removal of the carotid body in patients with obstructive lung disease who do not respond well to medical treatment. After discussing indications for the procedure, he presents a description of the technic he employs, indicating the modifications he has introduced, and evaluates its results.

carotid body removal. The purpose of this paper is to report my experience with 850 cases of carotid body removal by an extended technic. Four hundred patients have been followed for a period of more than one year.

Presented before the 30th Congress, North American Federation of the International College of Surgeons, April 25-29, 1965, Las Vegas, Nevada.

Submitted for publication May 18, 1965.

The physiology of the carotid body is not well understood. It is known that it has a chemoreceptor reflex highly sensitive to changes in the oxygen and carbon dioxide concentrations and the pH of blood. Widdicombe found that anoxia, acting on the carotid body reflexly, caused a moderate amount of bronchial constriction in the anesthetized dog. I noticed at the operating table that when the area of the exposed carotid body is injected with lidocaine, the patient's breathing improves almost immediately and any minor cardiac irregularity usually diminishes or disappears. I have felt that much of the improvement derives from a sympathetic effect on the bronchial tree, not only by relieving bronchospasm, but also by improving the circulation to the lungs through the bronchial arteries. By my extended technic, more sympathetic pathways are interrupted. Comroe has shown experimentally that where there is bronchospasm, there is always associated vasospasm, and that where there is vasospasm, there always is bronchospasm.

It is not known whether there is an internal secretion from the carotid body. Potent hormones come from small glands, such as the parathyroids. Pursuant to this theory, 16 consecutive carotid bodies were sent to the histochemical division of the Institute of Health at Bethesda, Maryland, for histochemical and hormonal study. The specimens were frozen immediately upon excision to prevent any loss of chemical substance. It is hoped that results of this study will add greatly to our understanding of the function of the carotid body. To my knowledge, this has not been investigated in the human before.

Diagnosis in some of the cases is very difficult, for it is not uncommon for two or three varieties of obstructive lung disease to coexist. Sometimes all four of the conditions are present in the same person. After

a considerable length of time, the patient who has asthma will inevitably acquire emphysema. Since in so many patients with asthma and associated severe obstructive emphysema we were obtaining satisfactory results with removal of the carotid body, we began to use the operation in patients with symptomatic obstructive emphysema alone. In this series of cases, asthma had been present on an average of 15 years. Many patients had had it as long as 40 or 50 years. The youngest patient who was operated upon was 4½ years of age, and the oldest was 84 years old. Age is no contraindication to surgery, and I would have no hesitancy in operating on a patient of any age, providing his general condition was satisfactory. Overholt and associates have operated on patients as young as two years of age. In the entire group with obstructive lung disease, there were 82 patients more than 70, and six more than 80 years of age. I have found that the ratio of men to women was 1 to 3, and that emphysema in women occurred on an average ten years earlier in life. Some of the most serious cases were those of women. Most of the patients gave a history of smoking heavily for many years, and some 25 per cent were or had been taking cortisone. Some patients had been using it for a long time, even to the point of developing cortisone facies. I have fortified them with increased doses just before operation and have had no difficulty with this problem.

Diagnosis in the Emphysema Group.—Emphysema is the second most common disability that qualifies patients for Social Security benefits before the age of 65. There are ten million people in the United States with this disease, and it is predicted that 60,000 of them will die from it in 1965.

Many patients who acquire emphysema early in life give a history of asthma. Em-

physema can be classified as mild, moderate and severe. The patient with mild emphysema has no symptoms because the pulmonary function is well compensated; when emphysema becomes moderate, however, the patient becomes symptomatic. He will tire easily and have a little more difficulty going up steps, walking fast, or carrying on usual activities. Because of these symptoms he may consult his doctor to ask whether he has a heart condition. The doctor may check the blood pressure, listen to the heart and then reassure the patient that his heart is all right. The patient continues to have shortness of breath and when he gets a chest cold, he will have difficulty getting rid of it. He coughs and expectorates a great deal of secretions and often begins to wheeze. He may consult his doctor again, and if the doctor sees the patient at the time he is having the respiratory infection, a prescription may be given for that, and the diagnosis of emphysema still may not be made. It often happens that the patient will see several doctors before finally a roentgenogram made in the anteroposterior and lateral positions permits correct diagnosis.

In the severe group, the patient is quite disabled—a so-called pulmonary cripple. Because of the great amount of publicity about emphysema, almost everyone will obtain the correct diagnosis in this stage. It is not always easy to make the diagnosis from clinical and roentgenologic findings. For that reason, pulmonary function studies will be necessary. If there is a reduction in the timed vital capacity and the maximum breathing capacity, then one can be certain that emphysema is present. My method of study consists of complete history and physical examination, diagnostic roentgenography, electrocardiographic study, and complete blood chemistry analysis—blood urea, blood sugar, blood cholesterol and bleeding factors. All patients are

seen in consultation by an internist. If there is indication for bronchoscopy, it is carried out. Bronchography may also be done. I hesitate sometimes to use bronchography in the very allergic person because an acute attack may be precipitated.

Technique.—Narcotics are not used preoperatively or postoperatively because of the danger of depressing the respiratory center. Pulmonary carbon dioxide retention in the presence of narcosis is a real threat. I have been using hydroxyzine 5 to 10 mg with 0.4 mg of atropine one hour before operation. Often the patient is given 500 mg of ethchlorvynol the night before the operation. Thiopental is contraindicated. At first, I used only local anesthesia (1 per cent lidocaine), but as I began to accept more and more patients with obstructive emphysema for surgical treatment, I found that frequently they were so short of breath and restless that it was difficult to perform the operation using only a local anesthetic. In the last few months I have been using endotracheal halothane. I feel that the operation can be performed with greater speed and fewer technical problems if the patient is quiet.

A liberal incision is made along the anterior border of the sternomastoid muscle. The cervical nerves that run over the muscle are divided and the muscle is retracted posteriorly exposing the carotid body. The jugular vein and the vagus nerve are retracted laterally. The carotid artery is completely mobilized for a distance of about 4 or 5 inches (10.16 or 12.70 cm). Tapes are placed around the common carotid, the internal carotid and the external carotid arteries. The superior thyroid artery is divided and ligated; this helps in the mobilization. There is usually a layer of very fine connective tissue between the adventitia and the media, and if the right line of cleavage is obtained, dissection can be carried out fairly well and rapidly. As soon

as the carotid bulb area is exposed, 1 per cent lidocaine is injected into the adventitial tissue to block the impulses to and from the carotid body.

My modification of Nakayama's technic consists in complete removal of the adventitia for a distance of $1\frac{1}{2}$ inches (3.81 cm) of the upper part of the common carotid artery, the bulb and the lower $1\frac{1}{2}$ inches (3.81 cm) of the internal and external carotid arteries and all of the tissue within the crotch, which is very abundant in nerve tissue, together with the carotid body. The dissection starts superiorly at the lower border of the hypoglossal nerve and posteriorly at the level of the superior laryngeal nerve. I always expose these nerves so as not to injure them. There usually is a small artery supplying the carotid body, which is ligated.

The operation takes from 20 to 30 minutes. The wound is usually closed without a drain. If the cervical lymph nodes are traumatized, however, or if they are extremely large (as is so often the case in the asthmatic patient), I may remove one or two, and in that instance frequently employ a drain. If there is a good deal of oozing, a small Penrose drain is used. This precaution minimizes the chance of hematoma. The skin is closed with fine silk sutures. Within three or four weeks, very little scar is visible. This is an important consideration for many patients.

The bilateral procedure has been used only in 11 patients.

The carotid body varies in size. Sometimes it is microscopic, and occasionally it is bifid. In two patients, there have been two carotid bodies on the same side.² After some experience one has little difficulty in identifying it. My modified technic affords interruption of more nerve pathways, and assures removal of the carotid body if it is in its usual position.

Anomalies are common. (I had one pa-

tient in whom the internal carotid artery was absent.) The carotid artery usually bifurcates at the level of the fourth cervical vertebra. If it bifurcates at a higher level, the hypoglossal nerve may cross right over the bulb, and in that instance the vessels from the external carotid artery are usually bunched close together. This requires mobilization of the hypoglossal nerve in order to do the operation that I use. Great care should be taken because traction or manipulation of the hypoglossal nerve may lead to temporary weakness of the side of the tongue. If it occurs, it usually subsides in six to eight weeks.

In the older patient with marked arteriosclerosis, the adventitia is often markedly thickened, nonelastic, and parchment-like. The two layers may be fused in places and, under those circumstances, dissection is more hazardous. In four instances I have perforated either the common carotid or the bulb, all of which were repaired by arterial silk sutures and in no case was there any untoward effect. The patients awaken from anesthesia very promptly. They usually are in the recovery room for no more than three quarters of an hour. By the time they return to their room, they are able to sit up on the side of the bed. In that position, expectoration of secretions is easier.

Frequently patients are ambulating within two to three hours and are able to take their meals. By this time, they can tell that they breathe better. By encouraging early ambulation and coughing, I have had no case of postoperative atelectasis or pneumonia. Stitches are usually removed on the fourth or fifth day postoperatively, and the patients are ready to be discharged from the hospital.

Four hundred patients have been operated upon over a period of three years. Of these, 211 were in the asthma group and 189 in the emphysema group. Two hundred

eighty patients (70 per cent of the 400) have replied to a follow-up questionnaire or have returned for follow-up studies. Of the 211 patients with asthma, 109, or 38.9 per cent, showed marked improvement. This means that they either had no further attacks, or if they had attacks, they were very minor and required very little medication. Some of these patients felt that they were "cured." I don't speak of cure, because if one does the wrong thing often enough or gets a lung infection, he will probably bring on an attack. Forty-three patients, or 15.3 per cent, showed significant improvement, which means they had only minor attacks, at infrequent intervals, and required little medication. Fifty-nine, or 21 per cent, showed moderate improvement. They had minor attacks, which on occasion required medication, but they considered that their improvement was satisfactory. In forty-six, or 16.5 per cent, there was only slight improvement. Twenty-four, or 8.5 per cent, showed no improvement. I did not encounter a case worsened by the procedure.

The long follow-up showed that the results were stable and practically the same as previously reported elsewhere, namely, 91 per cent improved, with 56 per cent to the point of no further attacks, or minor attacks, and decrease in the required medication. Of 21 patients requiring cortisone constantly for three or more months before operation, 16 no longer used cortisone for six months or longer; five patients were steroid-dependent.

Results in Patients with Emphysema.—In this group, that of the so-called pulmonary cripples, patients are unable to engage in gainful activity. Many of them are bed-to-chair patients and often cannot walk even for short distances. At the present time, only the very seriously affected patients are presenting themselves to the surgeon. They have had the conventional

treatment and are seeking further help.

It must be realized that surgical treatment represents a palliative procedure that offers help over and above anything that has been offered to these patients. I feel that the operation improves lung function and reduces or eliminates secretions. This lessens the likelihood of respiratory infection, as drainage from the bronchial tree is much better, and the workload on the heart is lessened. In spite of everything, the patient may still get chest colds or some other infection which has a tendency to tax lung function and cause progression of emphysema.

Of the 189 patients with emphysema who were operated upon, 85 per cent obtained relief. Forty-four of the 57 patients requiring oxygen preoperatively did not need it during the six-month, or longer, study period. Thirteen patients still required oxygen; five required it less.

With my modified technic, it would appear that the overall results are about 10 to 15 per cent better than those obtained by Nakayama or Overholt and associates who are using a technic involving only removal of the carotid body. It had been my impression that the modification here described was original, but communication with doctors all over the world disclosed that Rutkowski of Poland, Plangger of Vienna and Takino of Japan are all advocating and using this type of procedure. It is difficult to evaluate their results because of the different criteria used in selecting cases, variations in technic and human variants.

Severe obstructive emphysema accompanied by bronchiectasis was present in 11 patients. Results in this group were about equally good as in the group with obstructive emphysema alone. The degree of relief in these patients depends on the stage of the disease. Many patients presenting themselves for treatment are almost

at the terminal stage of disease. Their life expectancy is short, and some would not live more than three to six months unless additional help is afforded them. They may not live any longer after the operation, but I feel that if they can withstand the operation (in my experience the risk was less than 1 per cent), they at least will have had a chance and that, even though their life span may be short, they should be entitled to live that span more comfortably by breathing easier and having less secretions and less coughing.

Postoperative studies show that in many patients the pulmonary function has improved from 5 to 10 per cent, and in a few cases even more. Some patients markedly improved clinically but showed no improvement in their pulmonary function. Most of the patients who required oxygen preoperatively have not required it postoperatively.

Associated heart disease has been found in 25 per cent of patients, including ischemic heart disease, evidence of previous coronary occlusion and right heart strain. I do not believe coronary occlusion to be a contraindication to surgical intervention, although operation on patients in this category should not be performed sooner than three, preferably six, months after the coronary failure.

Twenty-five patients had pronounced polycythemia. (In one, the hematocrit reading was 68.) I am not sure just how to proceed with this problem. In some of the patients, an attempt was made to lower the blood cell count by phlebotomy. Lately, unless there is evidence of heart failure, the method has not been used prior to surgery, in order to give the patient the benefit of relief of bronchospasm, increase in circulation to the lungs, improvement in overall status and a chance to live longer more comfortably.

Boushy, Adhikari, Sakamoto, and Lewis

presented results of a 5½-year study of 61 patients with emphysema designed to determine clinical prognostic factors of pulmonary function. Cor pulmonale had been more pronounced in the 20 patients who died than in the 41 survivors. Of the pulmonary function studies, a maximum breathing capacity below 30 per cent of normal was associated with poor prognosis. Determination of maximum breathing capacity is of prognostic value because it measures the patient's strength and cooperation in addition to the degree of airway obstruction. Diffusing capacity has a prognostic value because it reflects destruction of pulmonary tissue. The most common cause of death in patients with emphysema is infection. They have chronic bronchitis and it is easy for pneumonia to develop. Many of the patients report that they have had pneumonia previously—sometimes as many as five times.

The second most common cause of death is congestive heart failure from pulmonary hypertension. A third cause is chemical or electrolyte imbalance; death may occur suddenly and at autopsy nothing specific is found. A fourth cause is bleeding from gastroduodenal ulcer, and unless an autopsy is performed, the condition may go undetected because often there is no vomiting or tarry stools.

Complications.—Almost all the patients with obstructive lung disease experience some numbness along the side of the jaw and the earlobe postoperatively. This is due to the division of the cervical nerves. The symptoms are usually not troublesome and last only about six or eight weeks. Occasionally, a small area of numbness does persist. I have had four patients in whom numbness and weakness of the contralateral arm and hand developed lasting for 48 to 72 hours. This undoubtedly was due to vasospasm, and the patients subsequently had complete recovery.

Hemiplegia developed in one patient 24 hours after operation. The patient has now almost completely recovered. (Sedwitz reported a similar case of vasospasm in one of his patients.) Hemiplegia developed in another patient 24 hours postoperatively, and the patient died two days later. No autopsy was held, and we do not know whether a thrombus or an embolism was present. In sclerotic vessels, it would not be surprising for a small clot or an atheromatous plaque to be dislodged during the dissection. The incidence of one death in this large series of cases from this cause is no greater than the incidence of stroke in the general population.

Curry, in a series of 1,000 cases of carotid angiography, had six patients who died 24 hours to 38 days later, and in whom injury to the intima was minimal. This demonstrates the hazard in any manipulation of the carotid body, particularly in these very sclerotic individuals.

One patient who was being prepared for carotid body removal sustained an acute perforation of the ileum which required immediate operation. She withstood the operation well, but a left hemiplegia developed the following day. Had she had her carotid body surgery the day before, an atheromatous plaque or a small blood clot probably would have been dislodged.

In dealing with older people, the possibility of stroke or some other complication, such as a heart attack, is always present. Five patients operated upon had a history of stroke. In the entire series, no coronary occlusion occurred in the postoperative period. One patient had a fatal massive coronary occlusion five hours before operation.

In a previous report I have referred to two cases of cardiac arrest, both of which were reversed by external cardiac massage. Both patients recovered completely. Since that time, I have had two other patients

who suffered cardiac arrest. One died during the operation in spite of the fact that external massage was tried for a period of two minutes, after which time the chest was opened immediately and manual massage was carried out. The heart was revitalized, but did not maintain its own beat. In the other patient external massage was carried out for a period of two minutes followed by open heart massage and although the heart was revitalized satisfactorily, the patient died two days later in the intensive care unit. Other workers have reported an increased incidence of cardiac arrest in this group of patients.

Gastroduodenal Ulceration.—The incidence of ulcer in obstructive pulmonary disease is high. Twenty-five per cent of patients whom I treated for obstructive lung disease had a history of gastroduodenal ulceration. For the most part, these ulcers had not been active; patients, however, who have presented themselves with severe respiratory distress and at the same time were bleeding from peptic ulcers, represented a difficult problem. Ulcers seem to be very vicious in this group of patients and often require operations. It is always advisable to institute a medical regimen before considering such patients for surgical treatment. This is just to minimize any complication during the immediate postoperative period.

The reasons for the increased incidence of ulceration are many. Tension and anxiety are big factors. Many patients are heavy smokers, and there may be some allergic implications as well. The vagus nerve is the motor nerve to the bronchial tree as well as to the stomach. With overstimulation to the bronchial tree there is also overstimulation to the stomach.

Planned Procedure.—My confidence in the carotid body procedure has developed to the point that if a patient with severe pulmonary insufficiency needs to undergo

a major operation, carotid body removal is first advised and executed in an effort to improve the pulmonary deficit. This situation obtains quite often because of the large number of people suffering from emphysema. Older patients with this disease are particularly likely to have concomitant malignant growths, gastroduodenal ulceration and many other surgical problems. A period of a week or ten days is usually sufficient for recovery from the carotid body removal. At that time the patient is breathing better and getting up secretions better. A number of patients underwent the carotid body removal and then returned for other surgical treatment, such as pulmonary lobectomy, resection of carcinoma of the colon, thyroidectomy, hernia and intestinal obstruction.

Tracheostomy.—In my experience, tracheostomy was not an immediately necessary procedure postoperatively, except in one case. The patient had an abundance of secretions and, in order to relieve this condition, a tracheostomy was performed. Two patients, owing to the progression of emphysema, required permanent tracheostomas; these have remained in place for six months and one year respectively.

Conclusion

Removal of the carotid body in patients with obstructive lung disease that does not respond well to medical treatment has proved to be a relatively safe procedure, even though many of the patients have been very poor surgical risks. No patient has died as a result of any technical problem. In the great majority of cases, the results have been gratifying.

Schlussfolgerung

Die Entfernung der Karotisdrüse bei Kranken mit obturierenden Lungenerkran-

kungen, die auf medizinische Behandlung nicht ansprechen, hat sich als ein verhältnismässig sicheres Verfahren erwiesen, obgleich viele von ihnen ein schweres chirurgisches Risiko darboten. Keiner der Kranken starb als Folge irgendwelcher technischen Probleme. In der grossen Mehrzahl der Fälle waren die Erfolge höchst befriedigend.

Conclusão

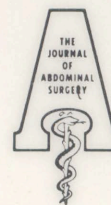
A remoção do corpo carotídeo em pacientes com moléstias obstrutivas pulmonares que não respondem a tratamento médico demonstrou ser um procedimento relativamente seguro, mesmo naquêles que foram considerados como risco cirúrgico muito pobre. Não houve morte em consequência a qualquer problema técnico. Na grande maioria dos casos os resultados foram altamente satisfatórios.

Conclusión

La extirpación del corpúsculo carotídeo en enfermos con enfermedades pulmonares obstructivas que no responden al tratamiento médico es un procedimiento relativamente seguro a pesar del gran riesgo quirúrgico de muchos de ellos. Ningún enfermo ha muerto a consecuencia de la intervención. Los resultados han sido buenos en la mayor parte de los casos.

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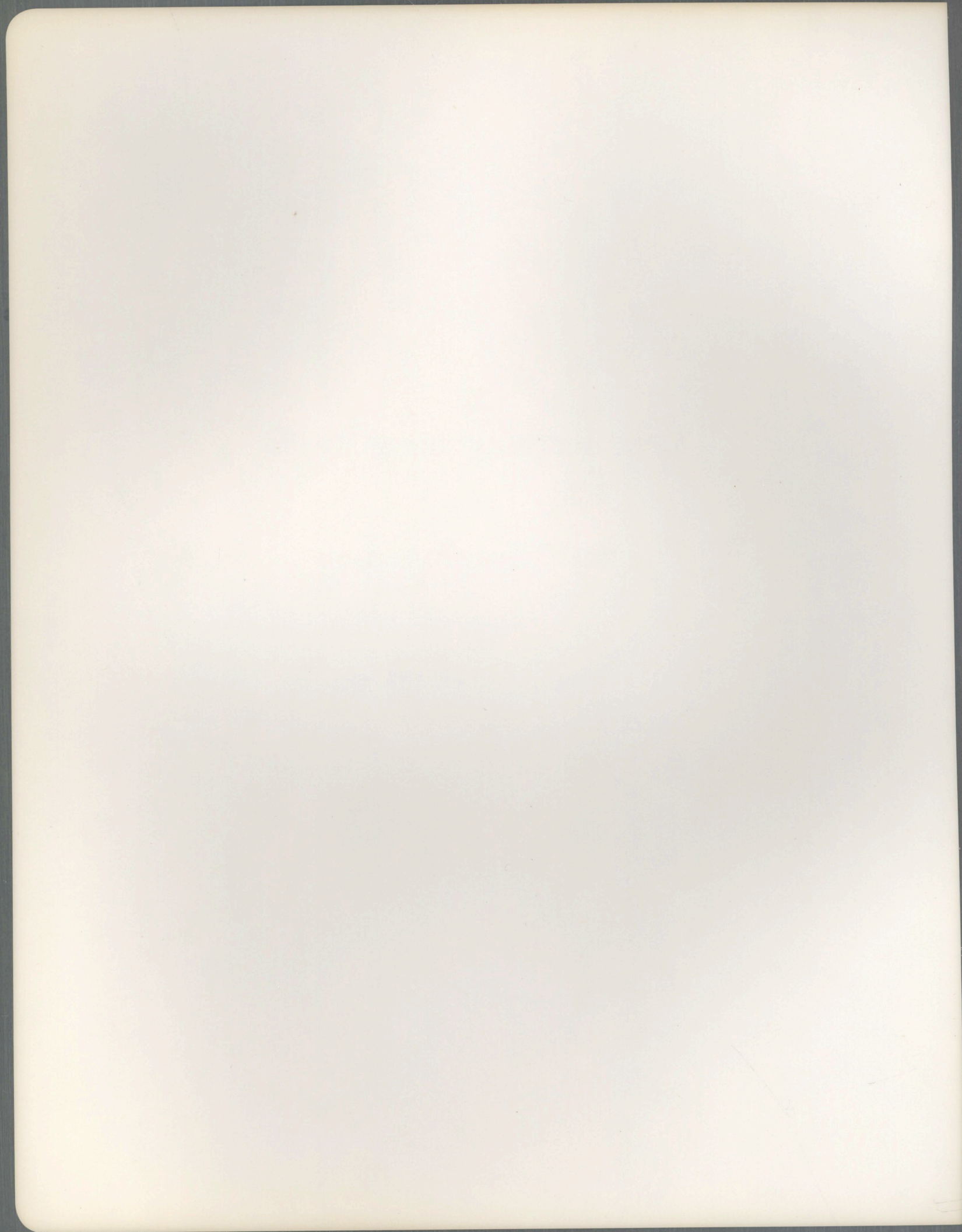
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Glomectomy for Asthma and Emphysema

JOHN ROBERTS PHILLIPS, M.D.*

* Houston, Texas



Glomectomy for Asthma and Emphysema

JOHN ROBERTS PHILLIPS, M.D.*

Presented before the General Surgical Section at the 113th American Medical Association meeting in San Francisco, California, June 22, 1964.

THE GREAT MAJORITY OF CASES WITH ASTHMA can be satisfactorily managed by medical measures. About 10 to 15 percent cannot be controlled, and additional help is needed. With about three million people suffering from asthma in this country, we can see the tremendous problem that confronts us. We are indebted to Nakayama⁴ who proposed and extensively used the procedure of carotid body removal.

The purpose of this paper is to report our experiences with 318 cases of carotid body removal by our modified technique. Two hundred cases have been followed from six months to two years.

The physiology^{2,3} of the carotid body as applied clinically is not well understood. Overholt's reasoning about the function of the carotid body, although it has not been proved or disproved, seems logical. Widdicombe and Nadel⁶ found that anoxia, acting on the carotid body reflexly, caused a moderate amount of bronchoconstriction in the anesthetized dog. Dulfano, Schlesinger, Marvit, Segal, and Soroff¹⁸ reported that following a challenge with mecholyl in the dog, the difference between pre and post glomectomy was striking. There was a significantly greater tidal volume with an accompanying decrease in airway resistance and pressure in the animals following carotid body removal. Prior to removal of carotid body the reverse was true when these animals were challenged with mecholyl.

Those observations were made immediately following glomectomy and could not be considered in the long-term effects when applied clinically to the asthma patient. We have found at the operating table, as soon as the carotid body is exposed and blocked with xylocaine, that the breathing becomes much better, cardiac irritabilities (if present) become less, and the patient becomes more relaxed.

We may find that the carotid sinus is a factor in the benefit, and it has never been proved that there may not be some internal secretion from

the carotid body as some of the cells look like adrenocortical cells. Other small glands, as the parathyroid, secrete potent hormones.

Carotid body removal is in no way competitive with the usual medical procedures. It is something to be used over and above anything else that has ever been offered. We are using it in bronchial asthma, asthma and emphysema, chronic bronchitis with obstructive emphysema, and in inoperable cases of bronchiectasis.

In our series, the average duration of the disease had been 15 years. Our youngest patient was four and one-half years of age, and our oldest patient was 80. Age is no contraindication to surgery. Overholt and his group have operated on patients as young as two years of age.

We have had 17 patients between the ages of 71 and 80. All of our patients have been evaluated by an internist. Such evaluation consists of x-rays, electrocardiogram, blood studies, and pulmonary function studies. Bronchoscopies and bronchograms are done if indicated. Spirometric studies are difficult to interpret as one's asthmatic status may change from minute to minute.

TECHNIQUE

Narcotics and barbituates are used in very small doses preoperatively and postoperatively so as not to depress the respiratory center. PCO₂ retention with narcosis is a real threat.

The unilateral operation is used. The side used makes no difference. We use the right side most commonly. The bilateral operation has been done in four cases with some apparent increased benefit. We have not done bilateral operations simultaneously.

The patient is placed in a semi-sitting position. At first we used a local anesthetic. Many of these patients were so apprehensive and short of breath that we now use the cervical plexus block, plus nitrous oxide gas. This enables us to do the operation quickly and more effectively than with blocking alone. In the patients in which there is a cer-

* Houston, Texas

vical block, the bleeding seems to be lessened. A general anesthetic is used in children.

A liberal incision is made parallel to the sternomastoid muscle, exposing the common carotid artery and its bifurcation. The superior thyroid artery is divided for better mobilization. A complete stripping of the adventitia of the upper 1½ inches of the common carotid and the lower 1½ inches of the internal and external common carotid arteries is carried out with removal of the tissue in the crotch with the carotid body. This technique was adopted because of the difficulty sometimes in finding the carotid body which may be microscopic. In one patient, two completely separated carotid bodies were found on the right side.

In addition, we hoped to interrupt more of the sympathetic pathways to the root of the lung. This technique is also being used by Rutkowski,⁷ Plangger,⁸ Takino,⁹ and McCracken.²⁰

Anatomical variations are common; and, although the bifurcation of the common carotid artery is usually at the level of the fourth cervical vertebrae, it may divide much lower or much higher. In a high bifurcation, the hypoglossal nerve may dip down over the bulb and it has to be retracted upward. The superior laryngeal nerve is always exposed and pushed proximally. In one case the internal carotid artery was absent. There was a well-formed bulb with an unusually large external carotid. The carotid body was located at its usual site.

The patients are allowed to be up the day of the operation, and some of them go home the following day. Most of the patients go home on the second day. The stitches are out on the fourth or fifth day. Usually they can travel long distances within five to seven days.

BRONCHIAL ASTHMA GROUP — Results

There were 62 patients in the asthma group, followed for a period of six months to two years. There has been significant relief in 56 percent of them. This means that they have very few, if any, attacks and require smaller doses of drugs, and some patients require no drugs. An additional 35 percent have shown some improvement.

We do not speak in terms of "cure". Any patient could probably have other attacks if the exciting factor were strong enough. Respiratory infection and influenza are often enough to be the

precipitating factor. In the asthma group there have been no hospital deaths and no late deaths.

In reviewing the world literature, it is found that the over-all results closely parallel those of Nakayama,⁴ Overholt and his associates,⁵ Rutkowski,⁷ Plangger,⁸ and others. Results, using the technique as described, appear slightly improved over the other groups; however, different workers may see and evaluate findings a little differently. There were 66 patients with asthma and obstructive emphysema. Their improvement was about the same as in the patients with asthma alone or with obstructive emphysema alone, namely 85 percent improved.

EMPHYSEMA GROUP — Results

The symptomatology depends upon the severity of the disease. Patients with early emphysema have no symptoms, and usually the condition is not diagnosed. With progression of the disease, patients notice they are becoming short of breath in their usual activities. Many of the patients wonder if they have a heart condition. Unless a careful examination is made the condition may go undiagnosed. Symptomatic obstructive emphysema patients are being accepted for surgery. In this group are many classified as the "pulmonary cripple". They often have difficulty in walking more than one half block because of dyspnea, and some are bed-to-chair patients.

After the usual medical procedures have been tried, they have been informed that nothing further can be done. They then seek further consultation, and we have been pleased to offer help to these patients. The problem of emphysema is an important one when we realize there are 10 million people in the United States with the disease. It is the second most common cause for securing Social Security benefits before the age of 65.

There were 72 patients with severe obstructive emphysema, six of which were also associated with bronchiectasis, 85 percent of them were helped to live more comfortably with the hope of an extended life span and a lessening of complications. The degree of help depends on the stage of the disease. The operation by increasing the pulmonary function by five to 10 or 15 percent and sometimes more lessens their dyspnea so that if they have previously required oxygen they may need it no more. The operation also usually lessens or eliminates the secretions.

We have found in the elderly patient with asthma and emphysema, or obstructive emphysema alone, there have been abnormal electrocardiographic changes in 25 percent of the cases. We have not declined cases with coronary artery disease who have had a previous coronary occlusion (not of recent origin) nor cor pulmonale if they were compensated. If decompensated, upon return to compensation, we have accepted the patient for surgery. Admittedly, we are dealing with a very serious condition. Their life expectancy is short. If the hematocrit was over 55, a phlebotomy was usually done preoperatively. We had one case with a hematocrit of 62, and two phlebotomies were done. Another patient with a hematocrit of 72 had three phlebotomies of 500 cc. each before surgery. We like for the hematocrit to near 50.

Bousy, Adhikari, Sakamoto, and Lewis¹⁹ presented a study of 61 patients with emphysema over a 5½ year period to determine clinical and pulmonary functional prognostic factors. They found of the clinical findings on the first visit only weight loss and cor pulmonale were present significantly more often in the 20 patients who died than in the 41 survivors. Of the pulmonary function studies, only a low maximum breathing capacity (below 30 percent of normal) were associated with a poor prognosis. The maximum breathing capacity has prognostic value because it measures the patient's strength and cooperation in addition to airway obstruction. Diffusing capacity has prognostic value because it reflects destruction of the pulmonary tissue.

All of the late deaths were in cases of the severe emphysema type and we find that seven percent have died within two years. The most common causes of death were congestive heart failure, pulmonary infection, massive hemorrhage from gastroduodenal ulcer, and unexplained sudden death. The patients were more comfortable because of lessening of dyspnea and secretions. For this help they were grateful. In no case did we feel that the carotid body removal was a factor in the death.

In the cases of severe emphysema the carotid body surgery is considered a palliative procedure to improve their breathing, lessen their secretions and the work load on their hearts. They are entitled to palliation so that they may live more comfortably.

COMPLICATIONS

Almost all of the patients get a little numbness along the side of the jaw and the lobe of the right ear. These symptoms remain usually from six to eight weeks.

One patient with hypertension and sclerotic vessels developed a left hemiplegia 24 hours after surgery. He recovered with very little residual. A thrombosis or a small embolism from an atheromatous plaque undoubtedly was the cause. Another patient developed a temporary weakness in the left arm and leg, and it completely disappeared after four days. It probably was on a vasopastic basis. Sedwitz¹⁰ has reported a similar case.

A patient with asthma and emphysema developed a cardiac arrest in the recovery room. He was treated with external cardiac massage with recovery. He obtained excellent results. Another patient with severe obstructive emphysema was thought to have cardiac arrest during induction of anesthesia. This was treated by external cardiac massage, which did not seem to be adequate. On making an incision through the skin in the left side of chest, circulation was found to be present. As soon as circulation and blood pressure returned to normal, the carotid body operation was done. This patient has had a good result. The incidence of cardiac arrest in this group of patients is materially increased.

GASTRODUODENAL ULCERATION

Twenty-five percent of the cases have had diagnosis of gastroduodenal ulcer when first seen by us, most of which were inactive. The only two immediate hospital deaths were complicated by bleeding from a duodenal ulcer. Therefore, we advise that a patient go on an ulcer regime at the time they call in for an appointment. Others¹¹⁻¹³ have called attention to the high incidence of ulcer in obstructive pulmonary disease. In neither of these cases did the technical part of the operation in any way contribute to their demise. Both cases were confirmed by autopsy.

PLANNED PROCEDURE

In the elderly patient, one must always be alert to detect emphysema; and, if it should be found with associated diminution in pulmonary function, we have so much confidence in the procedure, we have used it as a preliminary procedure to improve

pulmonary function before doing other elective surgery which otherwise would be hazardous or prohibitive. If measurable pulmonary function is not improved, often major surgical procedures may not be tolerated later.

Associated carcinoma is not uncommon at this age. We have had two cases of carcinoma of the rectum, and one of carcinoma of the upper lobe of the left lung — none of which we felt could have stood the definitive procedure without the help of the carotid body surgery.

One-fourth of the patients have been on Cortisone, or using Cortisone at the time we see them. This has not been a particular problem in their management. Cortisone is withdrawn as soon after surgery as possible and by taking proper precaution we have had no problem. One patient with severe emphysema with thick secretions required a tracheostomy the day after surgery. Two

other patients with severe emphysema have required permanent tracheostomies at a later date. Respiratory infection with thick secretions made them necessary. The tracheostomies were used as life-saving measures. We have had no patient develop pneumothorax postoperatively, although three patients in the series had a history of spontaneous pneumothorax preoperatively.

SUMMARY

Removal of the carotid body has proved to be a relatively safe procedure *even in such a poor risk group*. The results have been most gratifying in the great majority of cases. There are many unknown factors. A great deal of work is presently going on in an investigative way from a clinical, physiological, chemical, and pathological standpoint. As more and more people become interested in this problem, and the parts are spliced together, many more answers will be forthcoming.

AGE AND SEX INCIDENCE OF CAROTID BODY SURGERY FOR ASTHMA AND EMPHYSEMA

AGE GROUP	Male	Female	Total
0 - 10 years:	8	3	11
11 - 20 years:	5	2	7
21 - 30 years:	4	6	10
31 - 40 years:	5	8	13
41 - 50 years:	29	9	38
51 - 60 years:	39	11	50
61 - 70 years:	38	16	54
71 - 80 years:	14	3	17
TOTAL	142	58	200
Youngest case:			4½ years
Over 71 years of age:			17
Oldest case:			80
Four months pregnancy case:			27

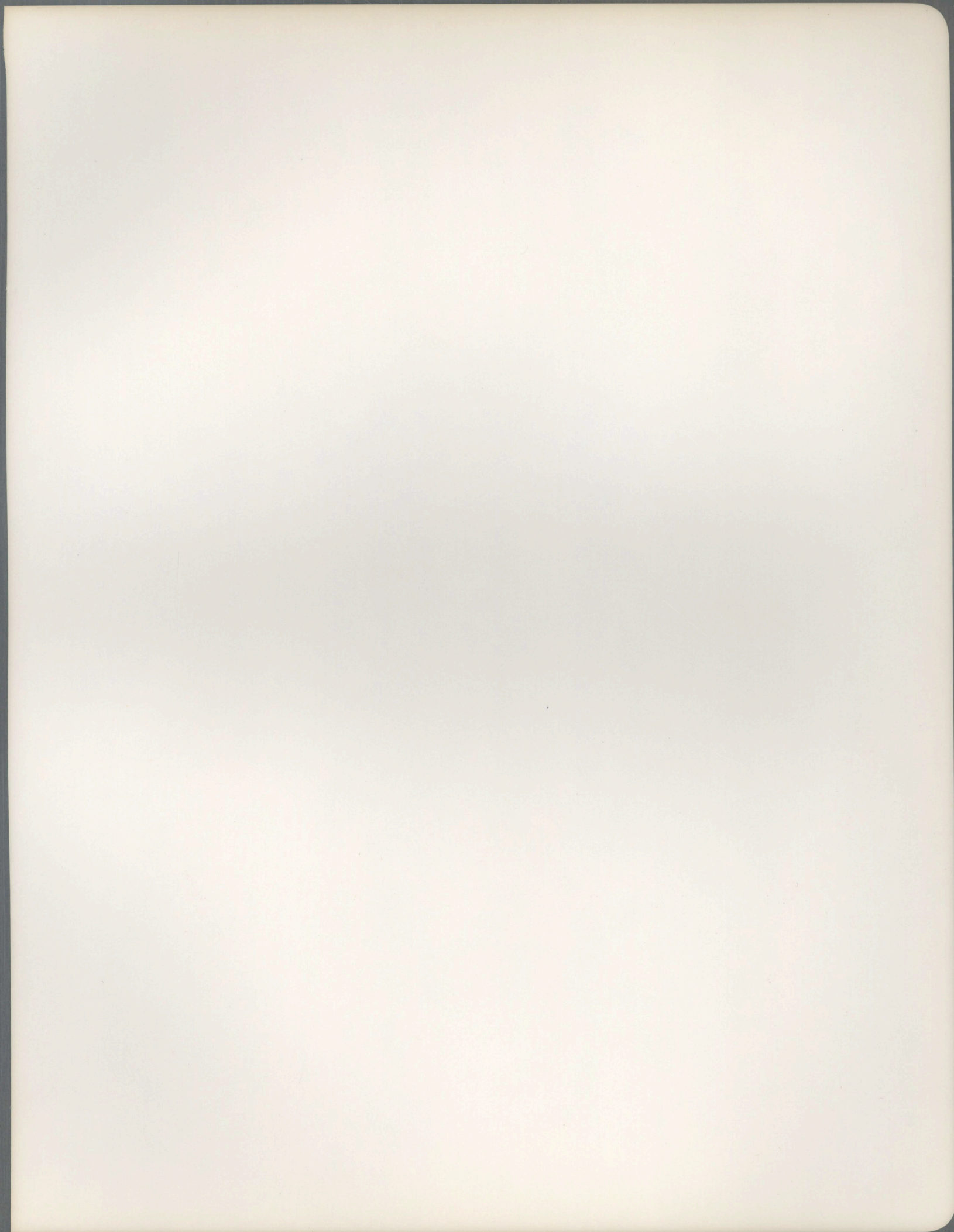
CAROTID BODY REMOVAL FOR ASTHMA AND EMPHYSEMA • 318 CASES

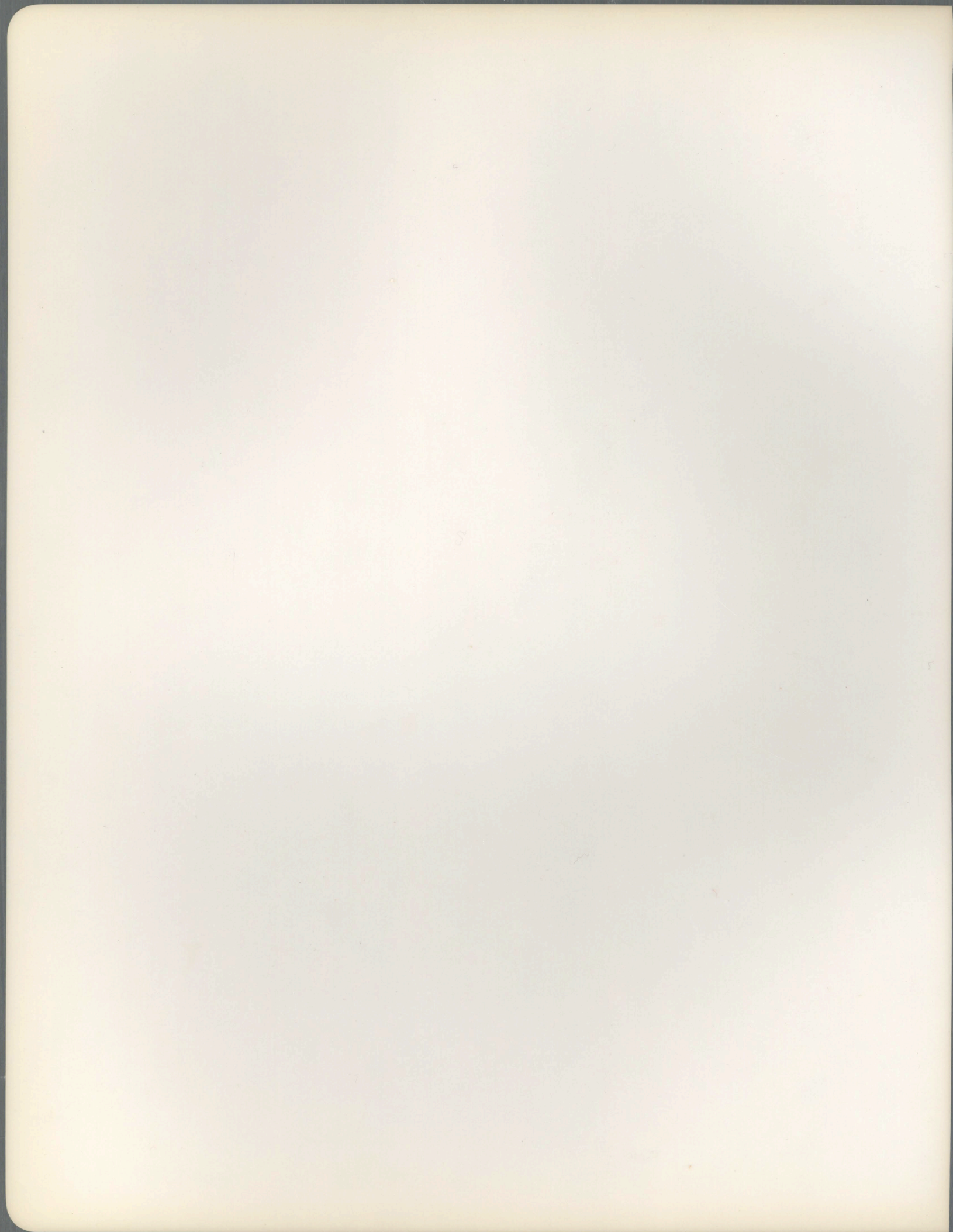
Bronchial Asthma	62
Asthma and Obstructive Emphysema	66
Emphysema	66
Emphysema and Bronchiectasis	6
All groups (under six months)	118
Total	318

FOLLOW-UP • 200 CASES

(Six Months to Two Years)

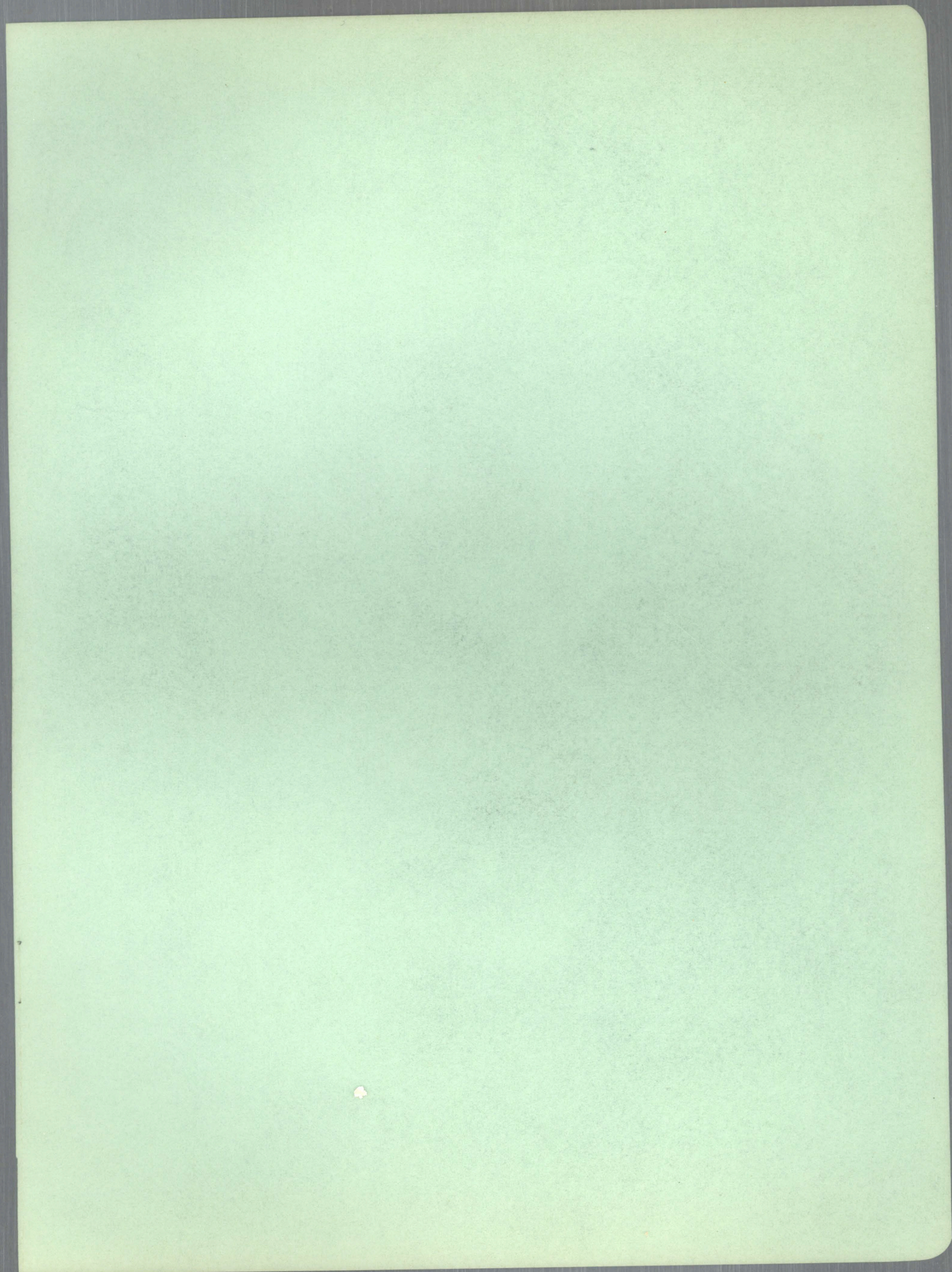
	Asthma	Emphysema
Significant Help	56%	50%
Moderate Help	35%	35%
Failure	9%	15%
Hospital Deaths	None	(Two) 1%

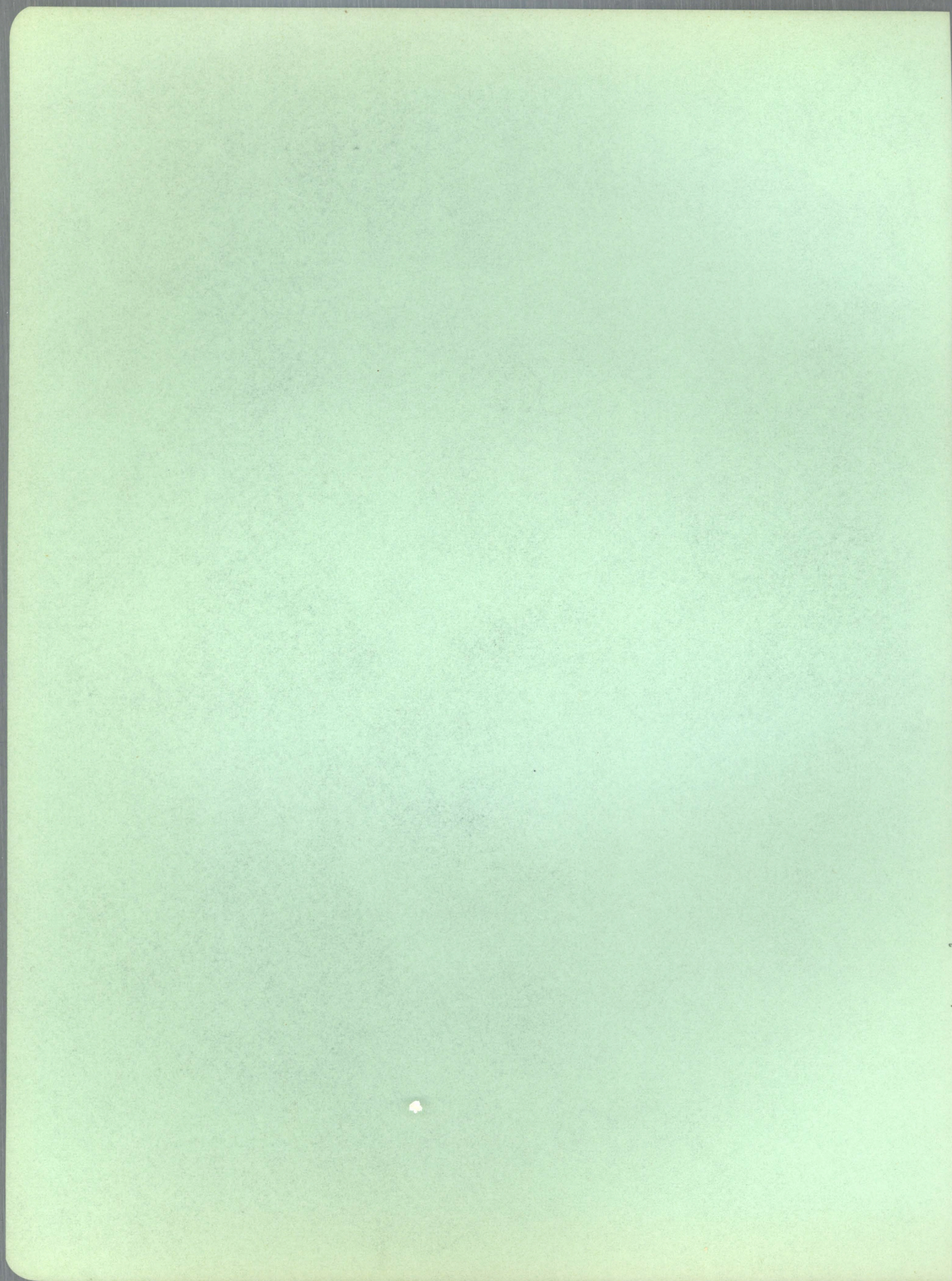




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DIVERTICULITIS OF THE COLON

by

JOHN ROBERTS PHILLIPS, M.D., F.A.C.G.

Houston, Texas

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DIVERTICULITIS OF THE COLON*

JOHN ROBERTS PHILLIPS, M.D., F.A.C.G.†

Houston, Texas

Diverticulitis of the colon is being seen much more frequently. This is due in large part to our aging population, for after the age of 40, the incidence of diverticulosis is 15 to 40 per cent. The greatest incidence of diverticulitis occurs after the age of 55. Although it is hard to predict what cases of diverticulosis will develop inflammation, the extent of the disease and the x-ray pictures may help in this prediction. Boles and Jordan followed 294 cases for a number of years and found 73 patients developed diverticulitis.

Diverticulosis occurs more commonly in the descending and sigmoid colon, and by far the greatest incidence of diverticulitis is in the sigmoid. Occasionally the cecum or ascending colon will be involved in an inflammatory process. The incidence in this area is about 2 per cent of the total. In acute right-sided abdominal symptoms, the possibility of diverticulitis should always be considered. It will have to be differentiated from acute appendicitis or a perforated carcinoma. At exploration, oftentimes with the lesion in hand, it is extremely difficult to tell if it is inflammatory or malignant. This uncertainty necessitates right colonic resection. The cause of diverticulitis is uncertain. Many patients have constipation, some have diarrhea. Spasm associated with an inherent weakness is probably the biggest factor.

The symptoms vary and they do not necessarily parallel the severity of the pathology. There may be a change in bowel habit, more constipation alternating with diarrhea, a feeling of fullness, pain and tenderness which may be associated with some fever and leucocytosis. Occasionally bleeding will occur in minor degree in about 15 per cent of the cases, and is reason for concern because of the likelihood of associated tumor. Massive hemorrhage does occur, and may require emergency surgery after blood replacement.

The differential diagnosis is often quite difficult as exemplified by a male patient, age 59 who came to the hospital with a copious passage of black tarry stools. He was quite anemic, and over a period of three days received eight pints of blood. It was known he had an extensive diverticulosis, but we considered the possibility of a bleeding duodenal ulcer. He was explored and no ulcer was found. There was a localized area at the splenic flexure from which the bleeding grossly was coming. The entire left colon was resected, and the transverse colon anastomosed to the rectosigmoid. The gallbladder was so acutely

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† Associate Professor of Surgery, Postgraduate School, University of Texas; Assistant Professor of Surgery, Baylor University College of Medicine.

inflamed with stones, it was felt safer to remove the gallbladder, than to take the chance of it complicating the postoperative course. During the resection of the colon a rent was made in the spleen necessitating its removal. To keep the cecum and the right colon decompressed, a Foley catheter was stitched in. An inflammatory polyp with a blood clot by a diverticulum was found at pathology. He had an uneventful convalescence, and now, five years postoperatively, he has had no further bleeding, and has been able to work every day. Hemorrhage and obstruction may develop in diverticulosis without apparent diverticulitis.

Indications for operation:—1. Repeated attacks; 2. continuing fever with or without chills; 3. evidence of subacute perforation; 4. evidence of obstruction; 5. urinary symptoms; 6. presence of mass; 7. bleeding; 8. inability to differentiate from carcinoma; 9. fistula. This represents one of the worse complications of all, and represents late and often neglected disease.

One attack may be handled medically, and if all factors are carefully watched, this may be safe, as other attacks do not necessarily follow. If, however, conditions seem to predispose other attacks, planned resection by one-stage procedure should be carried out. Many cases have associated abdominal disease and gallstones are common. Other abdominal conditions such as ulcer, may confuse one in the differential diagnosis if moderate or massive bleeding is present. The triad of diverticulosis, gallstones and diaphragmatic hernia occur in 5 to 6 per cent of cases.

The most difficult thing to differentiate is carcinoma. We must remember carcinoma of the sigmoid can occur in a patient with diverticulosis and the differentiation between carcinoma and diverticulitis may be difficult. Usually from a roentgen standpoint, the lesion is longer, cone-shaped, the mucosa is intact and the adjacent bowel is spastic. These criteria do not always hold, and again with the lesion in hand, often one cannot be sure if it is benign or malignant. If a one-stage operation is not possible and there is doubt in the surgeon's mind about malignancy, not more than a month or six weeks should be allowed to pass before resection. A longer waiting period is desirable to allow inflammatory changes to subside after diversion of fecal stream by right-sided transverse colostomy if the lesion is inflammatory. By proper preparation of the bowel, decompression, sterilization by neomycin, sulfathalidine and Kantrex, about 75 to 80 per cent should be able to have a primary one-stage procedure which is a tremendous saving in life, time and money. The usual hospital stay is 10 to 15 days. In complicated cases with acute perforation, abscess and fistula, a two- or three-stage procedure is still necessary with resulting over all hospital stay of six to eight weeks.

In limited resections of the sigmoid with extensive diverticulosis of the descending colon left behind, one would expect recurrences. Waugh has reported a case requiring three resections before cure was obtained. The reported incidence is 7 per cent as the same factors are still operative after surgery as

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before surgery. The over all risk of left colectomy will not be materially increased over limited resection. Since the difficulty of secondary infection is increased by adhesions, shortening fixity, fibrosis and since the ureter is often caught in the fibrotic process, I am more and more doing primary left colectomy.

A recent patient, age 68, who had come with the diagnosis of diverticulitis was found to have an associated carcinoma. An anterior resection of the rectosigmoid was carried out, and because of her age and poor condition, a left colectomy was not done. This is regrettable in the light of things that have come up postoperatively. For now, four months later, she shows up with a perforated diverticulitis with a large left inguinal abscess which required incision and drainage and right transverse colostomy. She is now faced with further resection, and then later a third stage of closure of the colostomy. By a little more extensive procedure of removing the entire left colon, I would have avoided this complication and the risk involved would certainly have been much less than having to put her through three surgical procedures.

DISCUSSION

Dr. Libby Pulsifer (Rochester, N. Y.):—It is a pleasure to be able to discuss Dr. Phillips' paper, and pleasant to find that we in the far reaches of upper New York State agree in principle with physicians who practice in remote Texas. Besides complimenting the author, I have a few things about this paper that I would like to say.

It is interesting that a surgeon believes, as we do, that colon spasm is probably an important factor in the production of diverticulitis in the presence of diverticulosis. We also find acute diverticulitis occurring after acute infection. This may be because, in the presence of acute infection, stools are apt to become dry with the associated dehydration and obstipation.

A word needs to be said about the medical treatment in the acute case although we all probably do about the same thing. It consists of rest, heat, non-residue diet, systemic antibiotics, sedatives, mineral oil probably and sometimes small doses of narcotics. Enemas, if at all, should be most carefully given.

As for indication for surgery, I would put first any possibility that we are dealing with a carcinoma. I would challenge all of us (and in saying this to you I am saying it to myself again and again) to x-ray all these cases, proctoscope them all, observe them all, reconsider them all, and think about cancer all the time, because cancer can be hidden in the presence of diverticulitis and may mock diverticulitis in every respect.

When I say "x-ray them all", I would like to qualify it slightly by relating to you a true story. A very good surgeon friend of mine was golfing with me one afternoon. We were walking down the first fairway when he said, "I just saw a case of acute diverticulitis that might interest you." He told me about it.

I asked him, "What are you doing for the patient?" He replied, "I'm going to have a barium enema done this afternoon and when I get back I'll decide what to do."

"Good Heavens!" I remonstrated, "Aren't you afraid that your barium enema may cause an acute perforation if it's done in an acute case like this?"

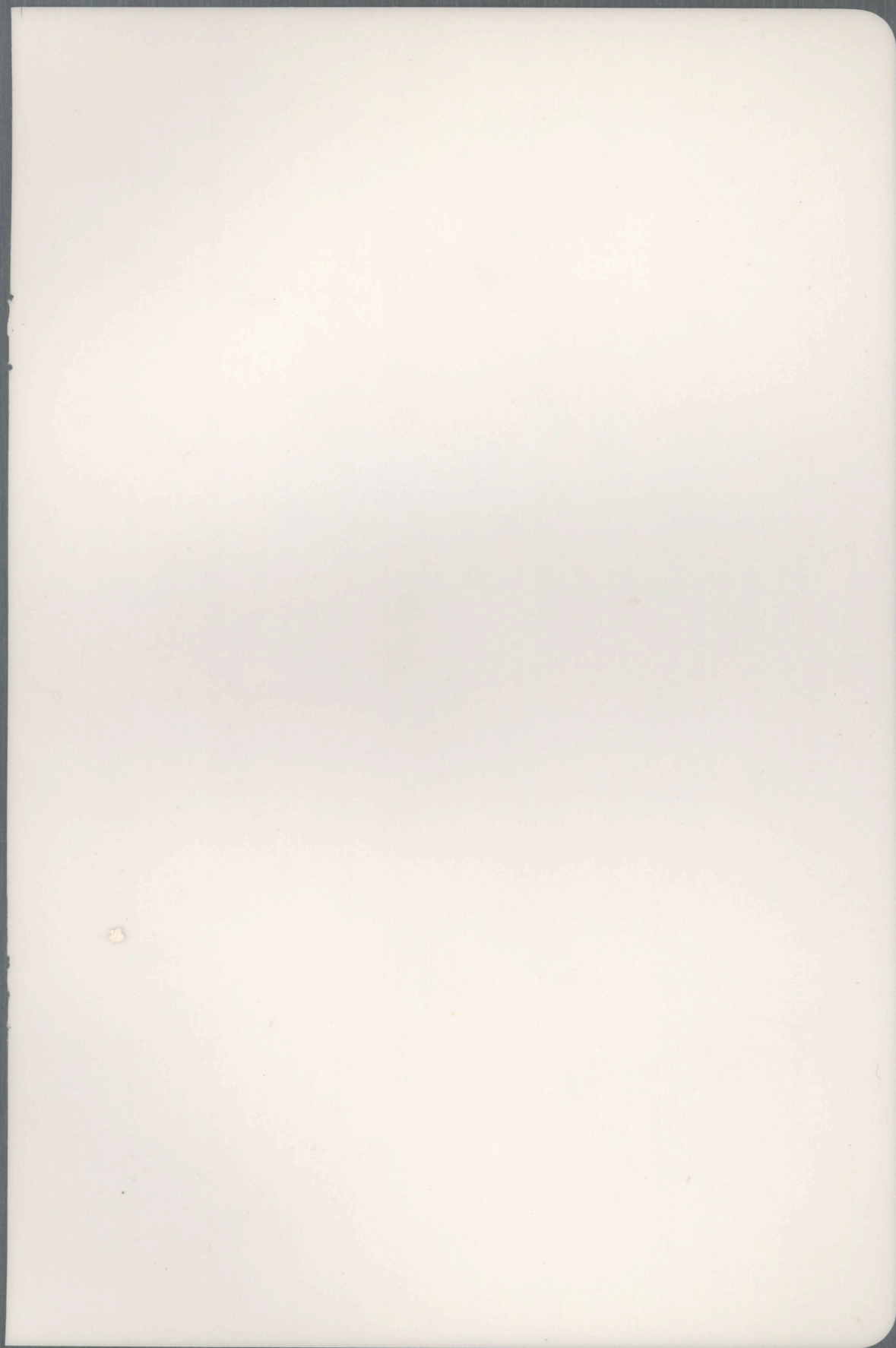
After that he was pretty pensive and didn't play very good golf. After the ninth hole he went into the clubhouse to telephone and he didn't come back. During the barium enema, his patient had had an acute pain and barium had spread out into the pelvis before the roentgenologist could reverse the pressure. Lesson—delay the barium enema until the acute inflammatory process has had a chance to get organized, but always do one.

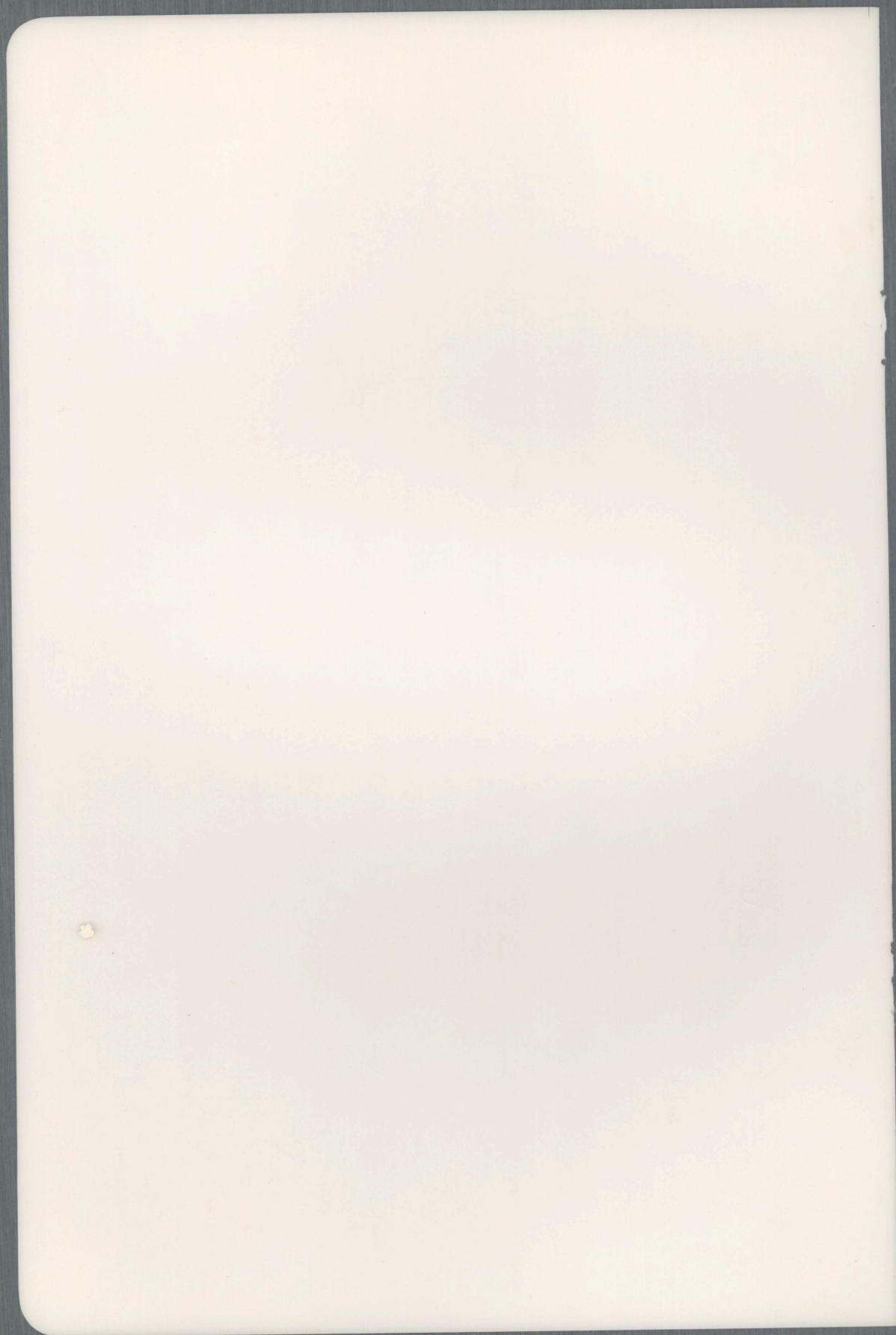
I agree with most of Dr. Phillips' other indications for surgery, but I would like to emphasize that resection is especially indicated in the case of younger people who have repeated attacks of diverticulitis. I will agree that a resection should be an ample one.

Besides a medical treatment for acute diverticulitis, we have worked out an effective prophylactic treatment. It involves intimate personal counselling toward living a life not free from stress but as free as possible from unreasonable stress, and a sensible diet. I would emphasize that it not be a very fussy diet because I have never been convinced that an acute attack of diverticulitis of the colon has been caused by any food except popcorn. So, I usually advise my patients not to eat popcorn. One tablespoonful, more or less, of mineral oil at bedtime is very strongly advised. Theoretically this is designed to keep the "tic" lubricated. No other stool softener has done as well. A long course of low dosage sedatives also seems to do these patients good. I have had about 20 to 30 patients on the above program and, while on it, I have only seen two who have had acute diverticulitis (one each). Several have been free from attacks for years. Two, who are well over 80, have followed it for 15 and 14 years respectively. Each of these had several bouts of acute diverticulitis in the year or two just preceding starting the treatment and have had none since even though they have traveled extensively. Both of these men, and several others, successfully treated, have x-ray evidence of such extensive diverticulosis of the colon that would put my friend's, Dr. Phillips', x-ray pictures to shame.

So, I commend this program to you in the hope that some of your patients may be spared the need of surgical treatment for diverticulitis.

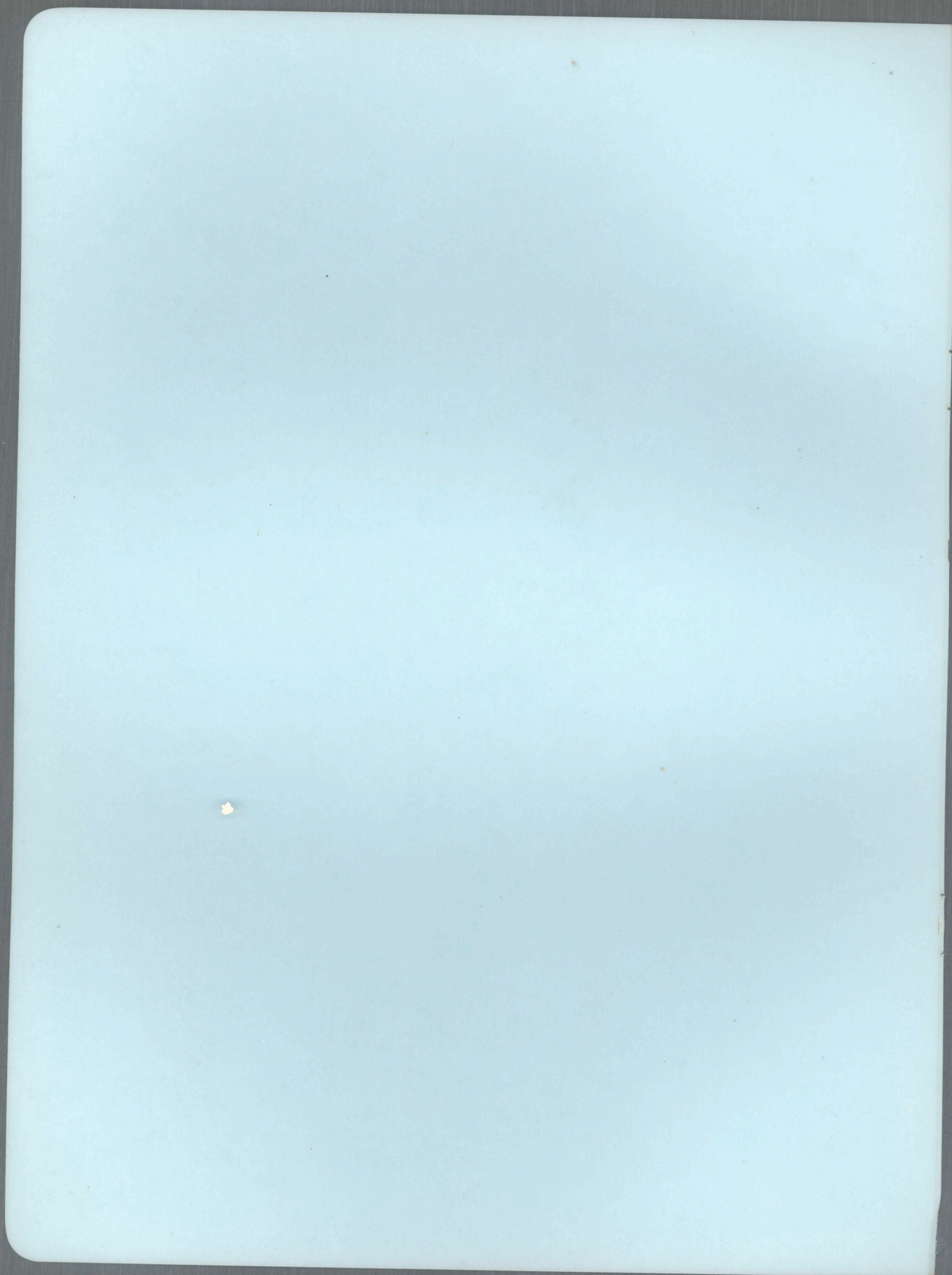
Dr. John Roberts Phillips:—I would like to thank an internist for discussing a surgical paper. This problem is primarily a medical problem, and we are usually called in for threatened complications.





Removal of Carotid Body for
Asthma and Emphysema

JOHN ROBERTS PHILLIPS, M.D.
Houston 2, Texas



Removal of the Carotid Body for Asthma and Emphysema*

JOHN ROBERTS PHILLIPS, M.D., *Houston, Tex.*

Here is a new approach to an intractable disease. The efforts of many will be needed to establish this procedure on a sound physiologic basis.

SURGICAL TREATMENT for asthma has been used since early in the century. It was then found that each portion of the autonomic nervous system carries both bronchoconstrictor and bronchodilator fibers, with the preponderance of the former in the vagus and the latter in the sympathetic nervous system. Kummell,¹ in 1923, excised the cervical sympathetic ganglion for the relief of the bronchospasm. The following year section of the vagus nerve was advocated by Kappis,² a combination of the two operative procedures being used. Lasting effects were not obtained and the untoward effect of Horner's syndrome led to further studies. Pulmonary denervations of the root of the lung was done by some surgeons, but it was so formidable as to be discontinued.

In 1942, Nakayama,³ of Chiba, Japan, a world-renowned surgeon, after investigating the physiology of the carotid body, originated the operation of removal of the carotid body. He reasoned correctly that removal of the carotid body would partially interrupt the spastic element in the tracts from the bronchus to the midbrain. The procedure has been used extensively in Japan since then. Because of the war and language difficulties, this contribution was not known in this country until Doctor Shiraha of Osaka discussed the procedure with Doctor Richard H. Overholt, of Boston, in 1958; my attention was first directed to the procedure in 1961 while visiting Doctor Overholt.⁴

During the past two years I have operated upon 170 patients. The procedure is used in cases of asthma, asthma and emphysema, conditions triggering asthma, and in symptomatic obstructive emphysema.

*Read before the Section on Medicine, Southern Medical Association, Fifty-Seventh Annual Meeting, New Orleans, La., Nov. 18-21, 1963.

Physiology

When one attempts to change physiologic processes, one encounters many uncertainties. All are familiar with Overholt's reasoning that the carotid body is very sensitive to changes in PO_2 , PCO_2 , and the pH of the blood. When PCO_2 in the blood is increased, impulses are sent to the respiratory center in the midbrain which stimulates rapid breathing. In the normal lung this is good, but in the patient with bronchospasm it aggravates an already embarrassed lung by increasing the amount of trapped air.

Widdicombe and Nadel⁵ found that anoxia, acting on the carotid body reflexly, caused a moderate amount of bronchoconstriction in the anesthetized dog. It may be found that the carotid sinus is a factor in the beneficial effect of the operation. It has never been proven whether there may be an internal secretion from the carotid body. Some of the cells look like adrenal cortical cells; small glands, such as the parathyroid, have potent hormones.

Surgery has had a very limited place in the treatment of asthma and/or emphysema, except for bronchoscopy to remove the thick secretions; and in some cases, tracheostomy is necessary for the relief of obstructive breathing. Now, happily, removal of the carotid body offers further help in these conditions.

The usual medical treatment which has been used with limited success consists of:

- (1) To resolve bronchial constriction and to relieve edema and hyperemia: Epinephrine, aminophylline, and related drugs.
- (2) To facilitate bronchial drainage: Expectorants.
- (3) To control infection: Antibiotics.

(4) To suppress the inflammatory process: Corticosteroids.

Surgery is not competitive with these usual medical procedures, but should be used more commonly in the patients in whom conservative treatment has not been rewarding. Thus, intractable cases of asthma are acceptable for surgical treatment. The average duration of the disease in this series has been 15 years. Our two youngest patients were age 6, and our oldest patient was 78 years of age. We have had 12 patients over the age of seventy. Most of the patients have been between 45 and 65 years of age.

All cases are evaluated by an internist, including x-ray, electrocardiographic, hematologic, and pulmonary function studies. Bronchoscopy and bronchograms are done if indicated. Spirometric studies are difficult to interpret because the asthmatic state changes from minute to minute.

Narcotics and barbiturates are used in very small doses pre- and postoperatively to avoid depression of the respiratory center, since PCO_2 retention with narcosis is a real threat.

Technic

The patient is placed in an inclined position on the table. At first we used local anesthesia, but some patients were so apprehensive, breathless, and restless that we now use cervical block plus nitrous oxide, which enables us to do the operation quickly and more effectively than with just block anesthesia alone. General anesthesia is used in children.

An incision parallel to the anterior border of the sternomastoid muscle is used, exposing the common carotid artery and its bifurcation. The superior thyroid artery is divided for better mobilization. By rotating the bifurcation to 180° , the area of the carotid body is exposed. It is then injected with 1% zylocaine which almost immediately helps the anesthesiologist to stabilize breathing. Often the respirations become easier, and the irregular electrocardiographic changes of irritation, which are being recorded continuously, usually quickly convert to normal. The carotid body is very small, the size of a grain of rice or smaller, thus making it difficult to visualize. It is embedded in the adventitia. For this reason, a periarterial sympathectomy of the upper one and a half inches of the common carotid, the bulb, and the lower one and a half inches

of the internal and external carotid vessels has been done, with the removal of all the tissues in the crotch. This procedure removes the carotid body unless there is some abnormality. There are two layers of adventitial tissue, and by dissecting under the second very fine layer, one is able to do a more complete stripping. The operation is performed in about 30 minutes. This procedure was adopted because we wanted to be absolutely sure we were removing the carotid body; also we wanted further to interrupt more of the sympathetic and parasympathetic pathways in this area.

I thought the periarterial sympathectomy was an original contribution to the Nakayama operation, but in a world-wide survey it was found that Rutkowski⁶ and Plangger⁷ were performing the same operation. Takino⁸ also advocates this type of procedure, showing I was not alone in my thinking.

The procedure is highly technical. Anatomic variations in this area are quite common, since the bifurcation of the carotid artery is not constant and, although it usually comes off at the level of the third cervical vertebra, it may come off lower or much higher.

The hypoglossal nerve dips down over the bulb in some patients, and often needs to be retracted upward; unless it is handled very carefully, an occasional patient may get a little numbness and weakness of the side of the tongue, which is only temporary. However, anything which increases the patient's difficulty in ridding himself of secretions is to be avoided. I do not use an endotracheal tube except as a necessity. This may increase the trauma to the mucous membrane with the increase in secretions. The unilateral operation has been done in all cases. This seems sufficient to break the reflex arc and restore balance. Bilateral operations have been done by others with only a slight increase in benefit.

No untoward effects of consequence have been noted from the operation. Most patients develop a little numbness of the skin over the lower jaw, and some of the lobe of the right ear, which usually persists for a period of six to eight weeks. The superior laryngeal nerve is identified and pushed out of the way. The loss of its function is of no lasting consequence, but it increases the difficulty with mucus in the throat and hoarseness. This postoperative discomfort may last from six to eight weeks.

One patient with hypertension developed

weakness of the left arm and leg which lasted for three weeks, undoubtedly due to a spasm or a small embolus from an arteriosclerotic plaque in that area. He recovered and is presently back at work, enjoying an excellent result. Sedwitz⁹ has reported a similar case. One patient had a cardiac arrest in the recovery room after awakening, and was treated by external cardiac massage and the establishment of an airway with complete recovery.

Many patients leave the hospital the day after operation, and practically all of them leave by the second postoperative day.

At first, only patients with pure asthma were accepted for operation. Since so many asthmatics have an associated emphysema, I began to accept more of them and was greatly encouraged with the results obtained. As experience increased, I began to use the procedure more and more for emphysema alone. Now half of the patients selected for operation have obstructive emphysema.

Results

Asthma Group. A review of the cases of asthma, postoperative six months or more reveals that 56% of the patients experienced significant relief, meaning they have very few if any attacks. These patients may require small doses of drugs or none. An additional 35% have shown definite improvement, and only 9% apparently have not been materially benefited. I do not speak in terms of cure but rather of help. Nakayama³ reports that 16% of patients have had no further attacks, and he tells me that if a patient goes two years without trouble, the chances are he will have no further trouble. There have been no hospital deaths in the asthmatic group. From correspondence with those over the world doing the operation, it was found that these results parallel quite well those of Nakayama and Overholt. My results are practically the same.

Emphysema Group. Patients with symptomatic emphysema are being accepted for operation. These are the so-called "pulmonary cripples," hardly able to walk more than half a block, or are "bed-to-chair" patients. Many have been on positive pressure breathing, have tried the usual medical measures, and are still debilitated. I am most encouraged with the results I have obtained in the group with obstructive emphysema alone; 85% have been definitely benefited.

Though 25% of the patients with emphysema have had abnormal electrocardiograms referable to the right heart, I have not declined to operate upon those with cor pulmonale if there was no decompensation. Seven have had evidence of an old coronary occlusion, and I have not considered this a contraindication to operation, but rather thought it might add an indication. I reasoned that the strain on the heart would be lessened by improvement of pulmonary function. By improving pulmonary function by 5%, 10%, 15% or more, one converts miserable dyspneic individuals to ones living more comfortably, and some have even returned to gainful activity.

Gastroduodenal Ulceration. The incidence of peptic ulcer is about 1% in the general population. Its incidence in cases of obstructive pulmonary disease, particularly emphysema, is tremendously increased. In our series, there was evidence of peptic ulcer in 25% of the cases, and my concern in the immediate postoperative period is hemorrhage from the ulcer. For this reason, I am now advising that medical management for ulcer be started at the time the patient calls for an appointment. Salter, Lyons and Newman¹⁰ recently reported on their experience with seven cases of severe hemorrhage, and emphasized the importance of making repeated blood studies of the PO_2 , PCO_2 , and pH during and after operation for better control.

Two postoperative deaths have occurred in the group with severe emphysema, not from the operation but from massive bleeding from an ulcer. One occurred on the fourth postoperative day after the patient had been markedly improved. He was breathing much better and was up walking about, when suddenly he developed severe hemorrhage from a duodenal ulcer which led to death. The second patient had far advanced emphysema and developed hemorrhage from a gastric ulcer the afternoon after operation, went into shock and died. Autopsies in both revealed a vicious type of gastroduodenal ulceration.

There have been no deaths from technical problems, and the risk of the procedure technically seems to be practically nil. The risk is from the disease. In the age groups in which this operation is done, other associated diseases are common.

Planned Procedure

I have so much confidence in carotid body

surgery and its benefit in obstructive emphysema that I have used it as a planned preliminary procedure to improve the pulmonary function before doing other types of elective surgery which might be considered very hazardous or prohibitive. After a week or ten days, or, in one case, a month, I then proceeded with the planned operation. One is dealing with elderly people who often have other associated serious diseases, such as carcinoma, for which further surgery is indicated. Operation on the carotid body provides hope for rehabilitation of more of such patients. Since duodenal ulceration occurs in such a high percentage of cases, and since such an ulcer has a tendency to be vicious, patients of this type may be more acceptable for the necessary gastric surgery after planned carotid body surgery.

Twenty-five per cent of the patients operated upon were on cortisone medication, or had had it. This in itself has not offered a particular problem, though I am most anxious to withdraw cortisone as quickly as possible. The incidence of peptic ulcer in patients taking cortisone is about 3%, one of the patients who died was using cortisone.

I have operated upon one pregnant woman who was on cortisone, but she was not helped. However, pregnancy offers no contraindication to operation.

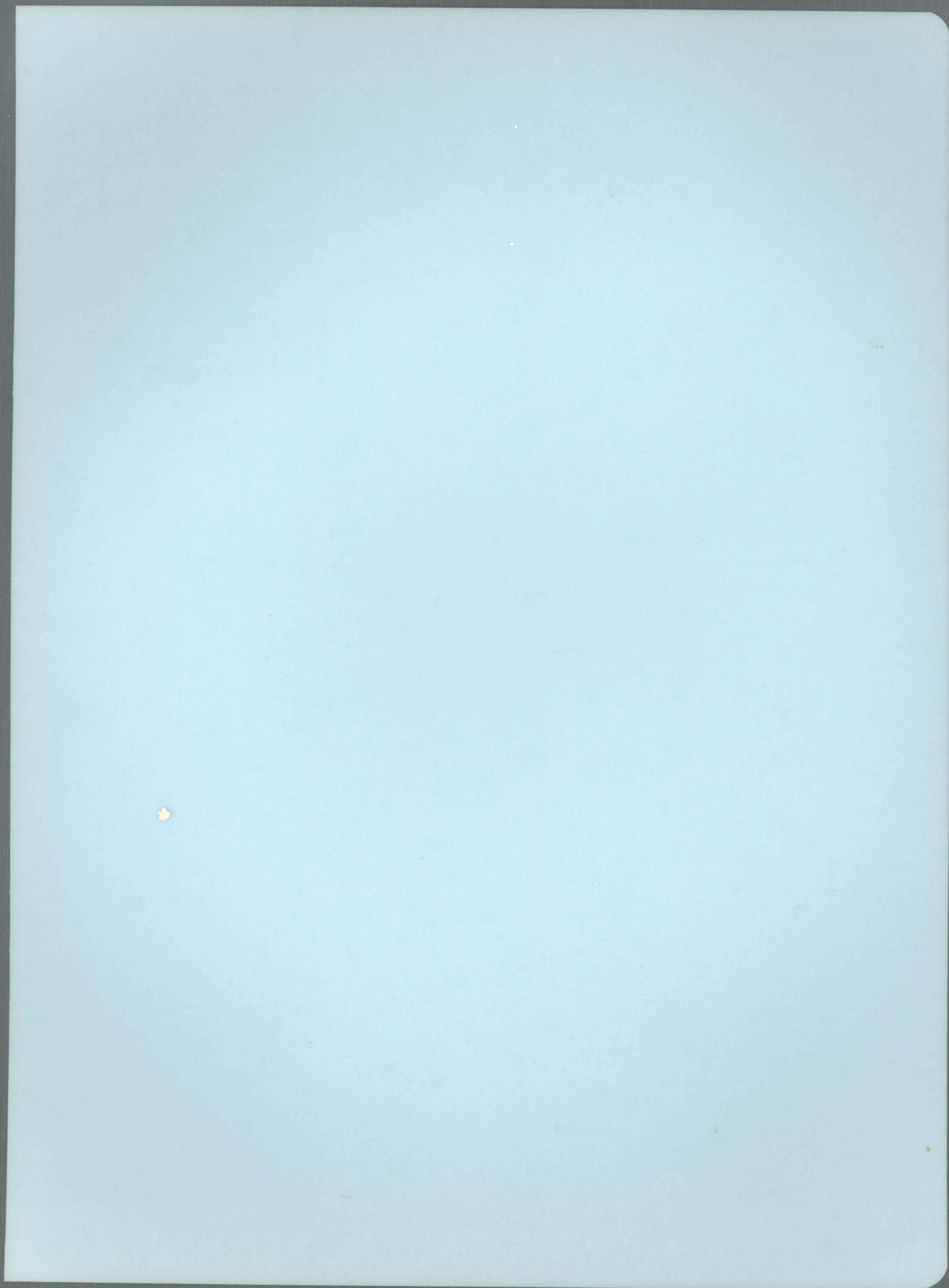
Two patients with severe emphysema and asthma have required permanent tracheostomies following further pulmonary infections after being relieved of their asthma. Three patients have had previous spontaneous pneumothorax prior to carotid body surgery. Although I fear this complication postoperatively, it has not occurred.

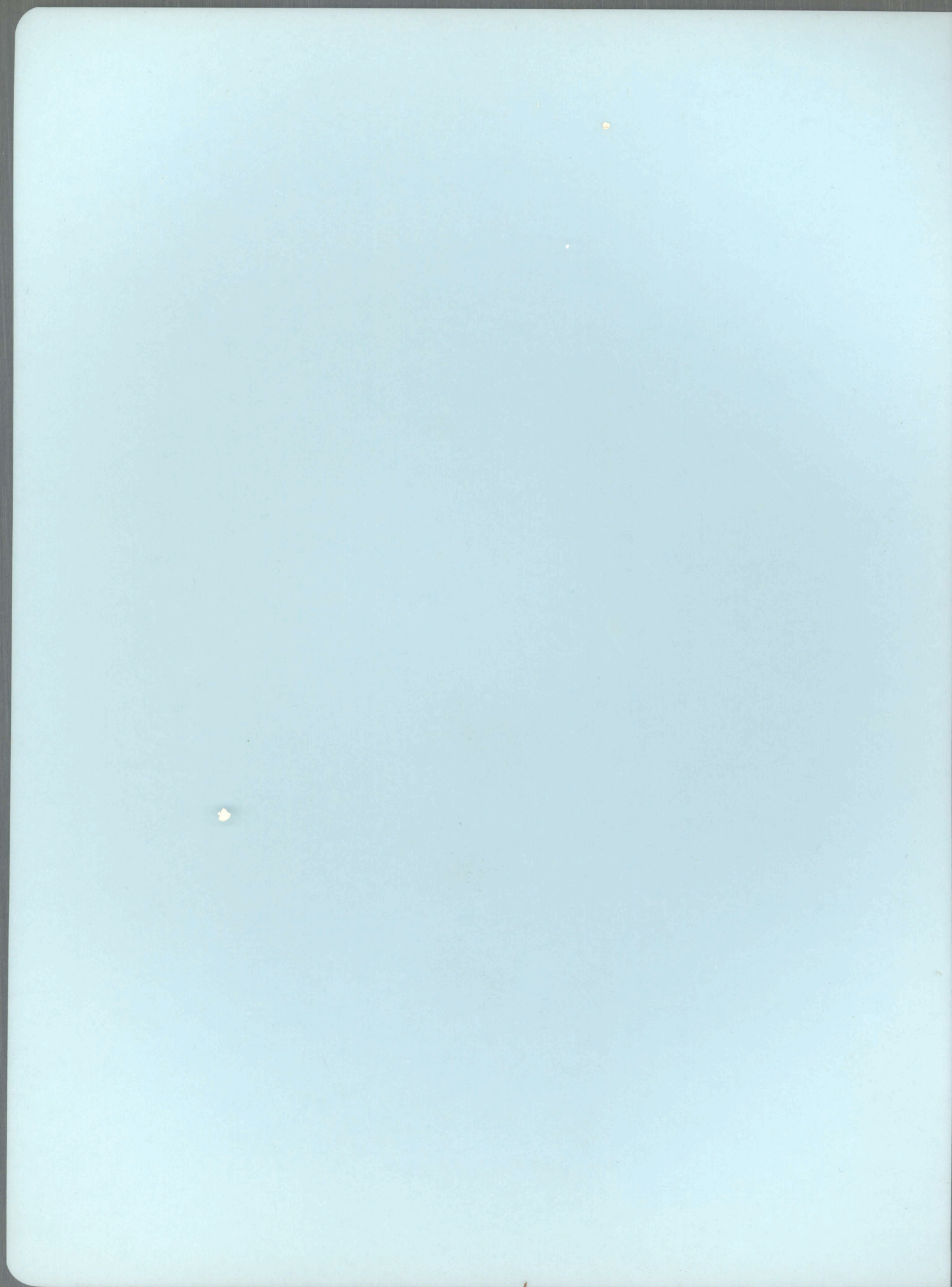
Summary

Excision of the carotid body combined with periarterial sympathectomy has been done on 170 patients for asthma, asthma and emphysema, conditions triggering asthma, and obstructive emphysema. The results are most gratifying for most patients. Admittedly, the physiologic basis is not understood or proven. However, the patient is interested in symptomatic relief and a goodly number are getting it. This operation has stimulated the thinking of clinicians, pathologists, physiologists and chemists of the world. Most of the responses to correspondence have been of a constructive nature. I believe the procedure will stand on its own merits, and by the combined continued efforts of those interested, an answer to many questions will be forthcoming.

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MRS. JOHN ROBERTS PHILLIPS, R.N.

A POEM BY
MRS. JOHN ROBERTS PHILLIPS, R.N.
1407 MEDICAL ARTS BUILDING
HOUSTON, TEXAS

I will not think that I have failed
or lived my life in vain
If to my credit I shall find
One friend to be my gain,
And, tho' the Road of Life is rough
with mountains hard to climb
I find there's joy along the way
And the journey, it is fine.
If there's a friend beside me
To cheer me with his song,
To smile his understanding
When everything goes wrong,
It gives me strength and courage,
The mountains to ascend,
And I find that life's worth living
As long as there's a friend.
Then be not hasty when I'm gone
To say I lived in vain,
Tho' ghosts of many failures
Like monuments remain;
But when life's sun is sinking
And I reach my journey's end,
Then count my earthly riches
In the number of my friends.



